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COMPATIBILITY OF REFRIGERANTS AND LUBRICANTS WITH ENGINEERING PLASTICS

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TABLE OF CONTENTS

ABSTRACT	1
SCOPE	1
SIGNIFICANT RESULTS	1
PHYSICAL AND CHEMICAL PROPERTIES OF ENGINEERING PLASTICS PLASTIC MOLD ENGINEERING PLASTICS LUBRICANT PREPARATION LUBRICANT IMMERSION STUDIES REFRIGERANT QUALITY REFRIGERANT IMMERSION STUDIES TENSILE AND PERCENT ELONGATION MEASUREMENTS STRESS CRACK - CREEP RUPTURE TEST CELLS THERMAL AGING OF PLASTICS WITH REFRIGERANT	1 1 2 2 2 2 3 3 4 6
COMPLIANCE WITH AGREEMENT	8
PRINCIPAL INVESTIGATOR EFFORT	8
APPENDIX INDEX AND CONTENTS	9
LIST OF ILLUSTRATIONS	
FIGURE 1. TYPICAL CREEP CURVE	5

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ABSTRACT

Seven oil immersion studies were completed at both 20°C and 60°C. Test bars used in this study fall within the manufacturer specification limits of physical consistency and integrity. Refrigerant Immersion studies at ambient and 60°C are also complete. Equilibrium refrigerant gas solubilities of the 32 ISO VG branched acid polyolester with all ten refrigerants have been determined and completed at 20°C. Finally, the thermal aging of plastics at constant refrigerant pressure exposure with seventeen refrigerant lubricant combinations have been completed.

<u>SCOPE</u>

The scope of this research provides compatibility information regarding plastics exposed to a wide variety of lubricant and refrigerant combinations. Data on the dimensional changes of plastic polymers were measured and the immersion and tensile properties were determined. Physical changes will be measured after ambient aging, under stress and after thermal aging for various lubricant and refrigerant combinations at constant pressure.

SIGNIFICANT RESULTS

PHYSICAL AND CHEMICAL PROPERTIES OF ENGINEERING PLASTICS AND LUBRICANTS

Physical and chemical changes in plastics exposed to differing chemical environments are generally specific to polymer type, processing and synthesis. Individual manufacturers, generally, have their own patent or proprietary methods for polymer synthesis and are not directly identified by generic name alone. As a result, molded polymers from different companies will often perform differently. Molecular weight, molecular weight distributions, polymer structure, chain length, density and processing may account for some of the observed differences. Data contained in this report reflect changes in properties of generic plastics obtained from specific manufactures.

Table A-1 identifies trademarks, registered trademarks or copyrighted names of plastics used in this study. In addition table A-1 identifies each plastic by an assigned number, referred to throughout the Appendixes.

The lubricants identified in Appendix A-1 are listed by manufacturer and generic name. This study only reflects the physical changes caused by the specific lubricant used and does not constitute a universal answer that all lubricants in the general category will have the identical behavior.

Table A-2 identifies the processing conditions used to mold the plastic test bars according to manufactures' specifications. Plastics are categorized by plastic number, name brand, manufacturer and generic type. Manufacturer specifications are used as starting guide lines for molders. Therefore, cylinders and molded temperatures may differ slightly to obtain the best mold test bars.

PLASTIC MOLD

A production quality steel thermoplastic/thermoset injection mold design was approved in February, 1992. The mold was completed on March 15, 1992. The first test material, a nylon 6/6 material, was tested and performed as expected. Each cavity has been numbered. Originally each cavity had two ejector pins located at opposite ends of the mold. Two additional ejector pins were included in later versions to improve straightness. Without these additional ejector pins, bending occurred in the gage area of the test bars. The quality of the mold finish in the gage area was improved to a 6F stone. Original test bars had smooth extension tabs. To minimize possible slippage during testing 0.005" molded nipples are now included on each side of the tab.

Also included in this study are effects on thermoset phenolic materials exposed to differing lubricant/refrigerant combinations. Unlike thermoplastic materials, injection thermoset materials require a longer mold residence time under increased pressure and temperature. Injection ports, sprues and gates are made larger than normal to improve plastic homogeneity and reduce and physical degradation of the plastics.

The thermoplastic mold was designed to handle both types of plastics materials. Provisions were made for a large cartridge heater necessary for a phenolic thermoset curing reaction. The phenolic used in this study was almost completely cured in the mold prior to ejection. The final test parts will be post cured for the recommended time, as required for completion of the reaction.

ENGINEERING PLASTICS

With the exceptions of DuPont PTFE and DuPont Vespel DF and DF-ISO, which were used as received, the test plastics were molded into the modified type 5 ASTM test bars. These DuPont plastics required special molding operations and sintering equipment not available to this laboratory. The DuPont Teflon PTFE test bars were rule die cut from sheet grade virgin PTFE. The supplied test bars were cut as specified in ASTM D 1457-91a, "Standard Specification for Polytetrafluoroethylene (PTFE) Molding and Extrusion Materials" and as defined in Figure 13, Microtensile Test Bars.

DuPont Vespel DF products are produced from granulated polyimide powder and formed to near net shapes by a very high pressure compaction process. DuPont Vespel DF-ISO products are also compaction molded but are also densified by sintering under pressure in liquid metal. Vespel test bars were compression molded, by DuPont, as per the ASTM E8-91 "Standard Test Methods of Tension Testing of Metallic Materials" and produced to shape as defined in Figure 16.

Due to its high creep cold flow properties, the Teflon PTFE plastic will not be tested in the creep rigs. All plastics have been molded as close to manufactures specifications as possible, see Table A-2. Consistency among test specimens was determined by tensile measurements of five individual unaged test bars. All unaged test bars met the manufacturers reported tensile properties of the molded engineering plastic. The unaged data is presented as an average of five test bars in Appendix F. The creep loads are 25% of ultimate tensile.

LUBRICANT PREPARATION

The lubricants used in this testing program were degassed and dried by heating quantities of the bulk fluid to 60°C (140°F) under vacuum for at least 24 hrs. Moisture content did not exceed 50 ppm, while the total acid number of the fluid's were below 0.05 mg. KOH/gm.

LUBRICANT IMMERSION STUDIES

Evaluation of the plastic test specimens at the required temperatures (60°C and 100°C) have been completed, and is presented in Appendix B. All plastics were immersed in the test lubricant in screw cap sealed vials under nitrogen cover at the specified aging temperature for 14 days. The dimensional property changes observed indicated that all of the plastics were affected by the lubricants in some way. Tables for each lubricant at the two temperatures are provided in Appendix B, which summarizes the average percent affect on measured parameters.

Dimensional property changes did not reflect changes in tensile properties. However, changes in dimension does suggest that some lubricant absorption has taken place, possibly impacting physical properties of the plastic.

REFRIGERANT QUALITY

Refrigerants received for use in this study were checked by packed column gas chromatography for contaminant content by other refrigerant gases. The refrigerants were found to have little, if any, contamination. Moisture content in the refrigerants was not determined.

REFRIGERANT IMMERSION STUDIES

The liquid refrigerant immersion studies were performed in separate stainless steel pressure tubes equipped with a gas space and a metering needle valve. The tubes were filled using a special low volume, low loss, stainless steel manifold. Prior to filling, the tubes were evacuated to 20-30 millitorr for several minutes and then chilled in ice water before filling. The valves were closed and then sequentially opened for filling with liquid refrigerant. Typically the plastic specimens were exposed to about 20 grams of liquid refrigerant.

At the end of the exposure time, the refrigerants were exhausted from the stainless steel tube as liquid into LN_2 cooled tared test tubes. The residues, if any, were then concentrated by boiling off the refrigerant. The amount of extractables generally ranged between 5 to 15 mg.

All refrigerants were found to affect the plastic parts in some way. A weight gain and some softening in the plastic was usually observed. With clear plastics the polymer takes on a silvery appearance. Generally the HFC refrigerants appear to least affect the plastics. The three plastics that seem to be most severely affected are ABS, polyphenylene ether, and polycarbonate. Although these results suggest the three plastics should not be tested in the 32 ISO VG branched acid polyolester with 40% refrigerant concentrations the presence of polyolester oil may allow the materials to survive the creep testing.

Aging for 14 days at ambient and $60^{\circ}C$ (140°F) in pure refrigerant was performed at the refrigerant saturation pressure. The thermal aging of the plastics with selected refrigerant lubricant combinations was performed at 150°C (300°F). The pressure of the refrigerant was controlled to fall within 275-300 psia (19-20bar).

TENSILE AND PERCENT ELONGATION MEASUREMENTS

The tensile tests were conducted using an Instron Model 1122 with a modified ASTM type 5 tensile bar. The plastics were placed vertically in test grips attached to the crosshead via a self-aligning universal yoke. The crosshead movement was set at the specified ASTM D678 pull rates and were between 0.2 and 1.2 mm/min. The load cell resolution is 0.5% of the observed force and has a load range of 0 to 120 Kg.

The physical property values of aged test bars reported in Appendix F are derived from two samples of test bars exposed to the selected refrigerant/lubricant environment, where as the unaged properties are from five test pieces. Percent elongation and ultimite tensile were calculated from the physical test data provided by the Instron measurements. Percent elongation is the total change in length divided by the one inch (25.4 mm) necked down length. The change in length is measured by the amount the crosshead moves from the original position until the instant the plastic bar breaks. Ultimate tensile is the maximum recorded load divided by the cross-sectional area of the gage region of the plastic test piece. Plastics thermally aged in different oil and refrigerant environments are then compared to the values of nontreated plastics. Relative percent changes are calculated and examined for significant changes.

STRESS CRACK-CREEP RUPTURE TEST CELLS

Currently all test cells are complete. Creep stress is currently being performed at 25% of the ultimate tensile load. Previous experiments at lighter loads, indicated that nylon test bars were insufficiently stressed. At lighter loads the nylon samples were in a purely elastic region resulting in spring-like behavior. Experiments with 25% load gave the best creep curve function and provided sufficient load to stress the gage area of the test bar within the 14 day test period.

Creep Measurement Process

The principal of creep rupture measurement required the use of sensitive, long term noise free electronics. Initially a commercial LVDT computer board system was used to measure creep. However unacceptable oscillatory noise was observed in test specimens using the 25% of dead weight loads. The origin of this unwanted noise seemed to originate with the sampling board.

It was determined that powering each LVDT with individual amplifiers and frequency source eliminated the noise. Unfortunately the required amplifiers were not immediately available. Thus, all boards presently in use for this study were designed, built and tested by IRI.

The use of individual amplifiers has allowed us to sample each cell at an hourly rate using four separate 15 second sample times averaged as a single test point. This increase in averaging further improves accuracy by eliminating random noise. Using individual amplifiers allows for rapid change out in the event of channel failure. Currently the sensitivity of the measurement is 1.5×10^{-4} inches; an improvement from the 2.5 x 10^{-4} inches stated in the last report. It is believed that this measurement level represents the best compromise between movement, position and reduced measurement noise.

We are not planning, at this time, any changes in the sensitivity of the creep rupture experiment. However, depending on the progression of the experiment we may wish to increase the sensitivity. Any change would be on the order of 75 x 10^{-6} inches which would improve measurements in plastics showing minimal creep.

Creep Modulus

The plastics used in refrigeration and compressor systems are expected to have high reliability and long-term stable qualities. The compressor and system design engineer requires information regarding physical property changes for proper engineering usage. The property of plastics under long-term load and at varying conditions provide measurable changes that are essential for an understanding of material behavior. Such material behavior is described in terms of creep properties.

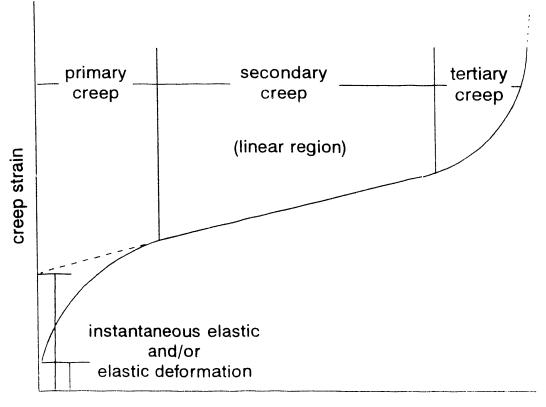
The phenomenon of deformation under load is referred to as creep. In this study creep was measured for plastics submerged in a 32 cSt synthetic lubricant, 32 ISO VG branched acid polyolester, with selected refrigerants maintained at 40% concentration by weight at $20^{\circ}C$ (68°F).

The plastic test bars were held in screw clamped stainless steel jaws. The clamping procedure consisted of first centering the test piece between the jaws and firmly squeezing the plastic tabs. An hour after the initial tightening the jaws are retightened to take up any cold flow which may have occurred in the jaw area.

Prior to loading, the test bars are immersed in the lubricant in a 100 millitorr vacuum for several hours removing any air. Liquid refrigerant is added to the bottom of the test cylinder through a needle valve. The cylinders are charged to a previously calculated gas pressure known to yield 40% refrigerant by weight.

The sample is loaded by slowly releasing a predetermined dead weight providing 25% of the samples ultimate tensile strength. When the plastic part is loaded, it rapidly deforms to a strain roughly predicted by its previously determined stress-strain modulus. With time and/or temperature the plastic part continues to deform until rupture or yielding causes failure.

Figure 1, illustrates a typical creep curve of the test plastics and shows four distinct regions on the creep curve. The first stage shows the near instantaneous elastic deformation of the gage area. The second stage, called primary creep, is more easily seen and is the strain which occurs much more rapidly but at a decreasing rate. The third stage, sometimes called cold flow, is the linear region of the curve and is characterized by a constant rate of creep. In most of our plastics so far we have not seen the fourth stage which is failure or rupture. The exceptions are the acrylonitrile-butadiene-styrene terpolymer and the modified polyphenylene oxide which fail within one hour in lubricant and refrigerant, (Table D-1,-2,-3).



time

Figure 1. Typical Creep Curve

Appendix D is devoted to the analysis of the first three sections on the creep curve as described above. The charts in Appendix D list the creep modulus, $(ksi, Kg/M^2)$, at five

different times in hours (10, 50, 100 200 and 300) along with a remarks column. The remarks column describes the fourth section of the curve where the actual failure occurs.

Creep measurements are generally a long term experimental process that can take months or years of examination. During this time period a much larger dimensional change takes place and all three phases of the creep curve can be properly defined. We are currently trying to identify a creep value and the environmental affects of synthetic lubricant and differing refrigerants on plastic parts under stress, within a 14 day time frame. The sensitivity of the measurement, the smallest amount of movement measurable, becomes paramount as it is related to long term environmental chemical exposure. It is not entirely unlikely that what is currently being identified as the second and third regions on the creep curve may be primary, and not long term creep.

Most manufacturers publish plastic creep values as several different temperatures and loads. In this study, we initially considered creep testing at 60° C (140° F) with refrigerant at a specific pressure, thus allowing the refrigerant concentration to be whatever it is at a specified pressure. However in order to have the plastic exposed to a greater amount of refrigerant a temperature reduction was necessary. Due to equilibrium gas solubility limitations of some of the HFC's it was decided to limit the concentration to 40% by weight since this was achievable with the 32 cSt branched acid, polyolester at 20° C (68° F) and not at 60° C (140° F).

Using a temperature of 60° C (140°F) with the 32 cSt branched acid polyolester, would require the pressure of the creep rigs to be limited to 300 psia for safety reasons similar to the thermal aging portion of this study. Vapor equilibrium concentration determinations are needed to determine the exact concentration of refrigerant in lubricant at this elevated temperature.

THERMAL AGING OF PLASTICS WITH REFRIGERANT AND LUBRICANT

The thermal aging of plastic test bars at 150° C (300° F) for 14 days with selected refrigerants and lubricant combinations, was conducted in stainless steel pressure tubes (as described previously) with refrigerant pressure not to exceed 275-300 psia. Following 14 days of thermal and pressure aging, the plastic test bars were pulled for tensile strength retention. The seventeen combinations required are now complete. Detailed results of each refrigerant and lubricant combination are included in the tables of physical change data appearing in Appendix's E and F.

At the onset of the thermal aging experiment, it was decided to eliminate ABS, Polycarbonate and modified Polyphenyleneoxide since very poor results in the refrigerant exposure examinations were observed. These plastics are, however, still being used in the creep-rupture experimentation.

It was decided to age plastic test bars in HCFC-123 (R-123) at $125^{\circ}C$ ($257^{\circ}F$) instead of the specified 150°C (300°F) since there is a known degree of reactivity or instability of this refrigerant and lubricant combination at the higher temperature. Unfortunately this temperature may still have been to high since most of the plastics specimens failed. After some discussion with the MCLR advisory committee it was decided to rerun the experiments with aging temperatures of $105^{\circ}C$ ($221^{\circ}F$). This data, along with the higher temperature, is included in appendix E and F.

Discussion of Results

The second portion of this study entails evaluating the end result of property changes in plastics at elevated pressure and temperature conditions. Using a test temperature of 150°C

 $(300^{\circ}F)$ for all plastics except the polypropylene homopolymer [exposed at $100^{\circ}C$ (212°F)] precludes the assumption that all plastics are stable at these temperatures. Two lower temperatures of $105^{\circ}C$ (221°F) and $125^{\circ}C$ (257°F) were used with HCFC-123 (R-123) due to the refrigerant being more reactive than the other HFC and HCFC's.

Plastic test bars are tested at conditions similar to production situations. Simulating production conditions, plastics were allowed to equilibrate at ambient moisture level conditions. Generally, plastics pick up moisture of hydration or adsorption. The moisture level can vary dramatically. Lubricants used in this study were dried to less than 50 ppm water. The ratio of plastic to lubricant weight was approximately 50:50 in all of the cases, which is not typical in product refrigeration systems. However, the use of larger quantities of lubricant would require larger quantities of limited refrigerants. Polyolesters can be hydrolyized by water. The rate of hydrolysis is dependent on water concentration, time and temperature as well as the types of catalysis present. Therefore, we must remain cautious when interrupting elevated temperature immersion data with potentially "wet" plastics.

With the exception of the hydrocarbon lubricants of mineral oil and alkylbenzene, the polyalkylene glycols (PAG) and polyolesters are less stable and can be reactive to released water from the plastic. During the 14 day test, some polyols seem to have produced carboxylic acids and an assortment of other compounds; some more aggressive than the lubricant.

The current study involved plastics in the presence of refrigerants and lubricants at elevated temperatures and pressures. However, some mechanism of identifying the affects contributed by the refrigerant alone would be beneficial.

The Acetal (3). Polybutylene terephthalate [PBT] (18) and Polyethylene terephthalate [PET] (10) left a floculant precipitate when the oil was at room temperature for several days. This material is an extractable component, possibly an oligemer of some kind, that can be a circulating contaminant. In small hermetic appliance systems a PBT and PET extractable is not removed from the lubricant by descant beads or the more polar aluminas due to its size. Instead, the materials can separate from the oil in a cool place like in a bullet drier exit port and provide a means for plugging capillary tubes. In larger quantities of lubricant, the extractable amount probably will remain in solution but separable when high amounts of HFC's are present. The PET plastic and extractable are dependent on manufacture and the retrograding process that occurs with temperature. The extractable of PET's are increased with time and temperature. Depending on the polyolester lubricant used this process may be accelerated.

The acetal (3) plastic evaluated in this study belongs to a family of materials that have acquired food-grade use status. The samples of lubricant used for the acetal (3) exposure were reexamined because of the drastic loss in tensile retention of the plastic part. The retained lubricant sample had a very strong odor of formaldehyde. The acetal (3) product literature indicated that when acetal (3) is heated to 120° C for any length of time, formaldehyde is released. The presence of formaldehyde was confirmed by trapping formaldehyde with benzyl ethanol amine and detecting its presence as the 3-benzyl oxazolidine derivative by gas chromatography. The fromaldehyde was removed from the lubricant by purging a portion of the lubricant sample with nitrogen and trapping the effluent gas on chromasorb coated with benzyl ethanol amine, followed by extraction with methylene chloride and confirmed by gas chromatography.

Appendix E, which details physical dimensional changes, indicate that most plastics show only minimal changes in size. However in Appendix F, which details the tensile properties of the test plastics, it is clear that all of the plastics are affected to some degree. The exact reason for tensile retention loss in test plastics after thermal aging, without knowing the individual affects caused by temperature, lubricant and refrigerant, is not known.

<u>COMPLIANCE WITH AGREEMENT</u> Imagination Resources has complied with all requirements of the agreement.

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PRINCIPAL INVESTIGATOR EFFORT

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Richard Cavestri (Principle Investigator) has devoted 1240 hours on this program. Technicians and other investigators have worked approximately 2340 hours on this project since the beginning of the research project.

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APPENDIX

APPENDIX A CONTENTS	PAGE
Registered and Registered Trade Marks of Suppliers	A-1
Engineering Plastics Molding Specifications and Molding Conditions	A-2

APPENDIX B CONTENTS

LUBRICANTS

Table, Plastic In	mmersion in 32	2 ISO V	/G	Mineral Oil	B-1
Table, Plastic In	mmersion in 32	2 ISO V	/G	Modified Polyglycol	B-2
Table, Plastic I	mmersion in 32	2 ISO V	/G	Polypropylene Glycol Diol	B-3
Table, Plastic I	mmersion in 32	2 ISO V	/G	Branched Acid Polyolester	B-4
Table, Plastic I	mmersion in 22	2 ISO V	/G	Mixed-Acid Polyolester	B-5
Table, Plastic I	mmersion in 32	2 ISO V	/G	Polypropylene Glycol Butyl Mono Ether	B-6
Table, Plastic I	mmersion in 32	2 ISO V	/G	Alkybenzene	B-7

APPENDIX C CONTENTS

REFRIGERANTS

Table, Plastic Immersion in HCFC-22 (R-22)	C-1
Table, Plastic Immersion in HFC-32 (R-32)	C-2
Table, Plastic Immersion in HCFC-123 (R-123)	C-3
Table, Plastic Immersion in HCFC-124 (R-124)	C-4
Table, Plastic Immersion in HFC-125 (R-125)	C-5
Table, Plastic Immersion in HFC-134 (R-134)	C-6
Table, Plastic Immersion in HFC-134a (R-134a)	C-7
Table, Plastic Immersion in HCFC-142b (R-142b)	C-8
Table, Plastic Immersion in HFC-143a (R-143a)	C-9
Table, Plastic Immersion in HFC-152a (R-152a)	C-10

APPENDIX D CONTENTS

STRESS CRACK - CREEP RUPTURE OF PLASTICS IN 32 ISO VC BRANCHED ACID POLVOLESTER WITH REFRIGERANT

32 ISO VG BRANCHED ACID POLYOLESTER WITH REFRIGERANT.	
Table, Creep modulus of plastics with HCFC-22 (R-22)	D-1
Table, Creep modulus of plastics with HFC-152a (R-152a)	D-2
Table, Creep modulus of plastics with HFC-134a (R-134a)	D-3

APPENDIX E CONTENTS THEDMAL ACINC PHYSICAL CHANGES

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THERMAL AGING, PHYSICAL CHANGES	
Table, 32 ISO VG Mineral Oil and HCFC-22 (R-22)	E-1
Table, 32 ISO VG Branched Acid Polyolester and HFC-32 (R-32)	E-2
Table, 32 ISO VG Polypropylene Glycol Butyl Mono Ether and HFC-32 (R-32) E-3
Table, 32 ISO VG Mineral Oil and HCFC-123 (R-123) at 105°C	E-4a
Table, 32 ISO VG Mineral Oil and HCFC-123 (R-123) at 125°C	E-4b
Table, 32 ISO VG Alkylbenzene and HCFC-124 (R-124)	E-5
Table, 32 ISO VG Modified Polyglycol and HFC-125 (R-125)	E-6
Table, 32 ISO VG Branched Acid Polyolester and HFC-125 (R-125)	E-7
Table, 32 ISO VG Polypropylene Glycol Butyl Mono Ether and HFC-125 (R-1	125) E-8
Table, 32 ISO VG Branched Acid Polyolester and HFC-134 (R-134)	E-9
Table, 32 ISO VG Modified Polyglycol and HFC-134a (R-134a)	E-10
Table, 22 ISO VG Polypropylene Glycol Diol and HFC-134a (R-134a)	E-11
Table, 32 ISO VG Branched Acid Polyglycol and HFC-134a (R-134a)	E-12
Table, 22 ISO VG Mixed-Acid Polyolester and HFC-134a (R-134a)	E-13
Table, 32 ISO VG Polypropylene Glycol Butyl Mono Ether and HFC-134a (R	-134a) E-14
Table, 32 ISO VG Alkylbenzene and HCFC-142b (R-142b)	E-15
Table, 32 ISO VG Branched Acid Polyolester and HFC-143a (R-143a)	E-16
Table, 32 ISO VG Alkylbenzene and HFC-152a (R-152a)	E-17

APPENDIX F CONTENTS

PHASE II THERMAL AGING, TENSILE CHANGES

Table, 32 ISO VG	Mineral Oil and HCFC-22 (R-22)	F-1
Table, 32 ISO VG	Branched Acid Polyolester and HFC-32 (R-32)	F-2
Table, 32 ISO VG	Polypropylene Glycol Butyl Mono Ether and HFC-32 (R-32)	F-3
Table, 32 ISO VG	Mineral Oil and HCFC-123 (R-123) at 105°C	F-4a
Table, 32 ISO VG	Mineral Oil and HCFC-123 (R-123) at 125°C	F-4b
Table, 32 ISO VG	Alkylbenzene and HCFC-124 (R-124)	F-5
	Branched Acid Polyolester and HFC-125 (R-125)	F-6
Table, 32 ISO VG	Polypropylene Glycol Butyl Mono Ether and HFC-125 (R-125)	F-7
Table, 32 ISO VG	Modified Polyglycol and HFC-125 (R-125)	F-8
Table, 32 ISO VG	Branched Acid Polyolester and HFC-134 (R-134)	F-9
Table, 32 ISO VG	Branched Acid Polyolester and HFC-134a (R-134a)	F-10
Table, 22 ISO VG	Mixed-Acid Polyolester and HFC-134a (R-134a)	F-11
Table, 32 ISO VG	Polypropylene Glycol Butyl Mono Ether and HFC-134a (R-134a)	F-12
Table, 32 ISO VG	Modified Polyglycol and HFC-134a (R-134a)	F-13
Table, 32 ISO VG	Polypropylene Glycol Diol and HFC-134a (R-134a)	F-14
Table, 32 ISO VG	Alkylbenzene and HCFC-142b (R-142b)	F-15
Table, 32 ISO VG	Branched Acid Polyoleter and HFC-143a (R-143a)	F-16
Table, 32 ISO VG	Alkylbenzene and HFC-152a (R-152a)	F-17

THE ENGINEERING PLASTICS USED IN THIS TESTING PROGRAM ARE
REGISTERED TRADEMARKS, TRADEMARKS, OR ARE NONE OF THE RESPECTIVE MANUFACTURER

		ENGINEERING PLASTIC		REGISTERED TRADEMARK,
NO.	TRADENAME	GENERIC NAME	MANUFACTURER	TRAD EMARK, OR NONE
1	AMODEL AD-1000 HS	POLYPHTHALAMIDE	AMOCO	REGISTERED TRADEMARK
2	CYCOLAC GPM 4700	ACRYLONITRILE-BUTADIENE-STYRENE TERPOLYMER	G.E.	REGISTERED TRADEMARK
3	DELRIN II 11500	ACETAL	DUPONT	REGISTERED TRADEMARK
4	DUREZ	PHENOLIC	HOOKER	REGISTERED TRADEMARK
5	KYNAR 720	POLYVINYLIDENE FLUORIDE	ATOCHEM	REGISTERED TRADEMARK
6	LEXAN 161	POLYCARBONATE	G.E.	RE ERED TRADEMARK
7	NORYL 731	MODIFIED POLYPHENYLENE OXIDE	G.E.	REGISTERED TRADEMARK
8	PROFAX 6331 NW	POLYPROPYLENE	HIMONT	TRADEMARK
9	RADEL A-200	POLYARYLSULFONE	AMOCO	REGISTERED TRADEMARK
10	RYNITE 530	POLYETI IYI.ENE TEREPHTHALATE	DUPONT	REGISTERED TRADEMARK
11	SUPEC G401	POLYPHENYLENESULFIDE	G.E.	REGISTERED TRADEMARK
12	TEFLON	POLYT	DUPONT	REGISTERED TRADEMARK
13	TORLON 4203L	POLYAMIDE-MIDE	AMOCO	REGISTERED TRADEMARK
14	TORLON 4301	POLYAMIDE-IMIDE	AMOCO	REGISTERED TRADEMARK
15	ULTEM 1000	POLYETHERIMIDE	G.E.	REGISTERED TRADEMARK
16	ULTEM CRS 5001	MODIFIED POLYETHERIMIDE	G.E.	REGISTERED TRADEMARK
17	ULTRAPEK (PAEK)	POLYARYI ETHERKETONE	BASF	REGISTERED TRADEMARK
18	VALOX 325 PBT	POLYBUTYLENE TEREPHTHALATE	G.E.	REGISTERED TRADEMARK
19	VESPEL-DF	POLYIMIDE-DF	DUPONT	REGISTERED TRADEMARK
20	VESPEL DF-ISO	POLYIMIDE-DF-ISO	DUPONT	REGISTERED TRADEMARK
21	VICTREX PEEK 450G	POLY (ARY STHERETHERKETONE)	ICI	TRADEMARK
22	XYDAR MG 450	LIQUID CRYSTAL POLYMER	AMOCO	REGISTERED TRADEMARK
23	ZYTEL 101	66 NYLON, POLYAMIDE	DUPONT	REGISTERED TRADEMARK

THE SYNTHETIC LUBRICANTS USED IN THIS TESTING PROGRAM ARE REGISTERED TRADEMARKS, TRADEMARKS, OR ARE NONE OF THE RESPECTIVE MANUFACTURER

NAME	ТҮРЕ	MANUFACTURER	REGISTERED TRADEMARK, TRADEMARK, OR NONE
ALLIED SIGNAL WHL 150	MODIFIED POLYGLYCOL	ALLIED-SIG.	NONE
BVRO-15	MINERAL OIL	BV ASSOC.	NONE
EMERY 2927-A	BRANCHED ACID POLYOLESTER	HENKEL	REGISTERED TRADEMARK
EMKARATE RL244	MIXED-ACID POLYOLESTER	ICI	TRADEMARK
EMKAROX VG32	PP GLYCOL BUTYL MONO ETHER	ICI	REGISTERED TRADEMARK
POLYGLYCOL P-425	POLYPROPYLENE GLYCOL DIOL	DOW CHEMICAL	NONE
SHRIEVE ZEROL 150	ALKYLBENZENE	SHRIEVE CHEM.	REGISTERED TRADEMARK

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ENGINEERING PLASTICS MOLDING SPECIFICATIONS AND MOLDING CONDITIONS

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				10 MAN	-10 CC-0	COLUMN 1								ACTL	AL MOLDA	IG CONDITI	SND				
	_	Dates		- Andrew	Cander 1	history	hinter	had	1_ T	\vdash	Dring Dring	a Cyinder	er Cytholer	F	Cytholer Cytholer Cytholer Cytholer	Cytholer	Cylinder	Cycle 1	·	⊢	
	_													-	2		Ĩ			_	
TypeAManutacturer			() dep			Î	200	6.00	() 10	(Juon)	(deg. F) (deg.C)	C) (deg P)	(deg C)	(deb)		(deg P)	(Jep)			(tage)	(deg F) (deg C)
Amodel AD - 1000HS Putyphthalamide/Amoco 1	•	175	70		- <u>10</u> 2	•	•	•		14.5 30	300 149		<u> </u>	+	316	8	313	2	S	- R15	8 8 8
Cycolae GPM4700 2 AB13/GE	2-4	190-	58	400-	7 7	9000- 20000	55178- 137844	120-	÷ 8	1	8	694	536	<u>8</u>	235	8 5	232	=	8 8	1 9358	120 49
Deich II - 11500 Acted/DuPont 3	•	•	•	\$ 3	204- 204-	10000 - 16000 -	00072- 110056	- 08 550 520	82 - 104	999	8 8	\$	ន	5 7	218	420	216	5	700 4	3	19
Durier 153 Phrandic/Hooker 4	•	•	•	•	•	•	•	076	171 REC	NOT NC REQUIRED RECU	NOT NOT REQUIRED REQUIRED	22 22	n	0;1	"	170	r r	8	 	3739	355 179
Kyr æ 720 Pol winylidene Chloride 5		NOT NOT NOT REQUIRED REQUIRED	NOT	375- 450	191-	MAX	ă	200	40- 83 85 86 7	NOT NOT REQUIRED REQUIS	NOT NOT REQUIRED REQUIRED	ð 3	520	8	224	\$ 35	77	<u>.</u>	700 4		90
ATCOChem Lexen 161 Polycerbonete/GE 0		530	121	520- 570	208	12000 - 20000 -	62767 - 137944	•		5 96	300 149	Şş	162	\$75	582	385	279	e			
Noryi 731 Pairphenylene ether/GE 7	2-4	59 59 59	-011	540- 570	282- 296	10000-	68972- 124150	210 7	- 8	9 5	8	995 9	503	5 2	201	220	88	5	8 058		
Preico 04485 Phinotic/Chem Eng	. _	•	•	•	•	2000- 6000-	13784 - 41383	300	140- 162 REC	NOT NOT NO	NOT NOT REQUIRED REQUINED	81 12	#	170	n	0/1	r 1	8		3739	355 179
Protex 6331 NW Parypropytene/Himont 9	•	•	•	•	•	•	•	•	- 22	NOT NC REQUIRED RECU	NOT NOT REQUIRED REQUIRED	51 4	213	004	204	305	202	5	700		
Racial A - 200 Polyaryi Sufficia/Amoco 10	0 25	330	111	650- 725	343-	•	•	329	÷ 5	15	300 149	745	8	735	301	730	ş	5		c 702.8	305 152
Ayr its 530 Polyethylene Terephilteleta 11	1 2-3	230-275	121-	355	591		-	- 08 520-	121	14.5 300	9 2	96 e	598	545	282	995	282	8	750 51	1 215	190 29
Dultont Bucker G401 Polyphenytens Suttle/GE 12	3-4	582	Ŧ	-090 630	304-	•	a	320-11	58	14.5	300 149	619	324	8	316	58 58	313		750 51		08 29
Torion 4200L Palyamide -imide/Amoco 13	9-3K	\$ %	121- 177	- 990 620	- 106 345	MAX	X	300 15 420 2	216	48 350	<i>L</i> 11	675	357	8	349	650	345	8	11 00/1	52/11	425 210
Torion 4301 Patyamide - Imide/Amoco	- 3	990 990	121-	- 950 260	345	XX	XW	380- 420 2	216	350	(1) 8	675	357	990	340	630	545	R	11 00 11	52(1)	450 232
Uttern 1000 Patyethertmide/GE 15	+	8	140	000	349- 427	10000-	68672- 137944	230	24-	15 300	81	175	427	770	410	765	407	5	80 80	6897 2	
Ultam CRS 5001 Polyehertmide/GE 10	•	8	140	- 990 - 000	349-	2000-	60072- 137944	350-	-90-111	300	8	517	413	770	410	765	407	51	90 20 20	2	285 124
Ufsapek Polyaherketone/BASF 17	•	•		716-7	360- 420	•	•	-		14 2360	121	765	407	755	402	745	9 6	9	86 000	5518	375 101
Valux 325 PBT Potyethylene Terephthalate	4-0	590	121	455- 480	235- 240	1000- 1000-	55178- 69672	- <u>-</u>	- 99 - 98	0 1	8	0 6 7	548	475	246	470	243	t t	900 800		
Gereral Bectric Victors PEEX 4503 Polystheretherketsne/ICI 19	n 0	8	140	860	370- 420	10000	00672- 140015	356- 18 374 !!	- 00	15 300	87	725	395	715	379	012	377	52	1100 73		362 163
Xydar MG 450 Uquid crystal polymer/Amoco 20	•	ş	641	660- 730	349- 366	•	•	- 00 250 250	62- 104	14.5 300	0	715	370	710	377	705	374	13			<u>8</u>
Zybe 101 Nylan 6/8 21	1 24	175	"	550- 590	200 310	5000 - 2000 -	34486 137844	210-01	121	14.5 300	140	220	5 8	545	205	0 4 5	282	R	P7 050	11 11	180
	Number of the second se										-								- - -		

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ED IN 32 ISO VG MINERAL OIL 3-1	
CHANGES IN PLASTICS IMMERSED IN 3 TABLE B-1	

POLYPHTHALAMIDE (de, C) b. b. <th></th> <th></th> <th>CHANGE</th> <th>CHANGE</th> <th>CHANGE</th> <th>CHANGE</th>			CHANGE	CHANGE	CHANGE	CHANGE
P. VPHTHALAMIDE D. P. D. P. D. P. D. D. D. FOLYPHTHALAMIDE 00 0 </th <th></th> <th></th> <th></th> <th></th> <th>_</th> <th></th>					_	
POLYPHTHALAMIDE 60 0 <th0< th=""> 0 0</th0<>	ف		ö	v	v	ö
POLYPHTHALMIDE 100 0	0	CREAM/FAINT GREEN	-0.03	-0.14		-0.11
ABS 60 0 <th0< th=""> 0 0 0</th0<>	0	NONE	- 0.59	-0.54		-0.34
ABS 100 0 <td>0</td> <td>NONE</td> <td>-0.08</td> <td>-0.32</td> <td></td> <td>-0.06</td>	0	NONE	-0.08	-0.32		-0.06
ACETAL 60 0 </td <td>0</td> <td>CREAM/WHITE COAT</td> <td>-1.91</td> <td>5.75</td> <td>-</td> <td>14.40</td>	0	CREAM/WHITE COAT	-1.91	5.75	-	14.40
AGETAL 100 0<	0	NONE	-0.13	0.14		-0.17
PHENOLIC 00 0	0	NONE	-0.28	-0.41		-0.21
PHENOLIC POLYNINYLICENE FLUORIDE POLYCARBONATE 100 0	0	NONE	-0.07	0.14	0.38	-0.44
FOLVENTUDENE FLUORIDE 60 0	0	NONE	-0.38	0.81	-0.38	-2.51
POLYNIWTLDENE FLUORIDE POLYNIWTLDENE FLUORIDE POLYNIWTLDENE FLUORIDE POLYCARBONATE POLYCARBONATE POLYCARBONATE POLYCARBONATE POLYCROPYLENE POLYROPYLENE POLYROPYLENE POLYROPYLENE POLYROPYLENE POLYROPYLENE POLYROPYLENE POLYROPYLENE POLYROPYLENE POLYROPYLENE POLYRTHATLONG POLYFETHATLUONGETHYLENE POLYFETHATLUONGETHYLENE POLYFETHATLUONGETHYLENE POLYTETTATLOUNGETHYLENE POLYTETTATLOUNGETHYLENE POLYTETTATLOUNGETHYLENE POLYTETTATLOUNGETHYLENE POLYTETTATLOUNGETHYLENE POLYTETTATLOUNGETHYLENE POLYTETTATLOUNGETHYLENE POLYTETTATLOUNGETHYLENE POLYTETTATLOUNGETHYLENE POLYTETTATLOUNGETHYLENE P	0	NONE	-0.04	-0.27		-0.05
POLYCARBONATE POLYCARBONATE POLYCARBONATE POLYCARBONATE POLYCARBONATE POLYCARBONATE POLYCARBONATE POLYPENYLENE OXIDE MODIFIED POLYPHENYLENE OXIDE MODIFIED POLYPHENYLENE OXIDE POLYPATOPYLENE POLYPTHYLENE EREPHTHALATE FOL POLYFTHYLENE EREPHTHALATE FOL POLYFTHYLENE EREPHTHALATE FOL POLYFTHYLENE EREPHTHALATE FOL POLYFTHYLENE EREPHTHALATE FOL POLYFTHYLENE FOL POLYTETRAFLUOROETHYLENE FOL POLYFTHRENSULFIDE FOL POLYTETRAFLUOROETHYLENE FOL POLYFTHRENSULFIDE FOL POLYTETRAFLUOROETHYLENE FOL POLYTETRAFLONE FOL POLYTETRAFLONE FOL POLYTETRAFLONE FOL POLYTETRAFLONE FOL FOL FOL FOL FOL FOL FOL FOL FOL FOL	0	LUCITE/YELLOW TINT	-0.16	-0.14	0.00	00.0
POLYCARROWATE MODIFIED POLYPHENYLENE OXIDE POLYPROPYLENE POLYPROPYLENE POLYPROPYLENE POLYPROPYLENE POLYPROPYLENE POLYPROPYLENE POLYPROPYLENE POLYPROPYLENE POLYPROPYLENE POLYPROPYLENE POLYPROPYLENE POLYPROPYLENE POLYPROPYLENE POLYPROPYLENE POLYPROPYLENE POLYPROPYLENE POLYPROPYLENE POLYPROPYLENE POLYRTRAFLUOROETHYLENE POLYRTRAFLUOROETHYLENE POLYPRENSULFDE POLYPRENSULFDE POLYPRENSULFDE POLYPRENSULFDE POLYPRENSULFDE POLYPRENSULFDE POLYPRENSULFDE POLYRTRAFLUOROETHYLENE POLYRTRAFLONE POLYRTRAFLONE POLYRTRAFLONE POLYRTRAFLUOROETHYLENE POLYRTRAFLONE	0	NONE	-0.07	-0.11		0.03
MODIFIED FOLYPHENVLENE OXIDE 60 0	0	NONE	-0.09	-0.68		0.03
MODIFIED FOLYPHENILENE OXIDE 100 0 <th< td=""><td>0</td><td>NONE</td><td>-0.17</td><td>-0.69</td><td>1</td><td>0.15</td></th<>	0	NONE	-0.17	-0.69	1	0.15
POLYPROPYLENE 60 0	0	GREY/WHITE COAT	-0.14	-0.05		2.38
POLYTIAND FOULTRIAN 100 0	0	NONE	0.40	-0.14		1.59
POLYRTNUTIONE 60 0	0	NONE	60.0-	2.44		10.44
POLYARILSULFONE 100 0	0	NONE	0.01	-0.40		0.09
POLYETHYLENE TEREPHTHALATE 60 0<	0	NONE	-0.01	00.00	-0.38	0.06
POLYETHALENE TEREPHTHALATE 100 0	0	NONE	0.01	-0.40	-0.78	0.02
FOLYTETRAFLUORDETHTIKAVE 60 0 <td>0</td> <td>NONE</td> <td>-0.01</td> <td>0.13</td> <td>-0.39</td> <td>60.0-</td>	0	NONE	-0.01	0.13	-0.39	60.0-
POLYTHENTLENESULFICE TOLYTHENTLENESULFICE TOLYTERAFLUOROETHYLENE 00 0	u v	NONE	-0.03	-0.27	-0.62	0.01
POLYTETRAFLUOROETHYLENE 00 0 <td>0</td> <td>CHOCOLATE/UGHTER</td> <td>-0.10</td> <td>-0.53</td> <td>-0.47</td> <td>-0.01</td>	0	CHOCOLATE/UGHTER	-0.10	-0.53	-0.47	-0.01
POLYTETRAFLUOROCTHYLENE 00 0 <td>0</td> <td>NONE</td> <td>0.02</td> <td>-0.40</td> <td></td> <td>0.12</td>	0	NONE	0.02	-0.40		0.12
POLYTETIMATEONOCETTITENE FOL POLYMIDE - IMDE FOO O	20	NONE	0.02	0.52	-1.49	0.03
POLYAMIDE - IMIDE OO O	C	NONE	-0.03	0.40	0.39	0.20
POLYAMIDE - IMIDE TOU O		NONF	00 0	00.0		0.15
POLYAMIDE MIDE		NONE	10.0-	-0.53		0.16
POLYAMIDE - IMIDE TOD O	5 0	NONE	-014	-0.13		0.19
FOLYETHERIMIDE 00 0		NONE		-0.32		0.01
POLYETHERIMIDE 100 0		NONE	-0.02	-0.16	0.00	0.02
MOUNTED FOLYETHERIMIDE 00 0	, c	NONE	0.01	-0.43		0.09
MOUNTENT FOLTETIME 00 0	2 0	NONE	90.0	-0.69	00.0	0.01
FOLYANTLETITEMACTONE 100 0	0	NONE	-0.01	00.0	0.78	0.04
POLYBATTLETTENDEL FOLYBATTLETTENDEL 60 0		NONE	0.00	00.0	-1.15	-0.11
POLYNMDE - DF 00 0	0	NONE	-0.07	0.38		0.06
POLYIMIDE - DF 60 0	0	NONE	-0.26	-0.22		0.05
POLVIMIDE - DF 100 0	0	NONE	0.04	0.00		0.07
POLIVIMIDE - DF - ISO 60 0	0	NONE	0.00	-0.15	0.96	0.02
POLVIMIDE - DF - ISO 100 1 0	0	NONE	-0.03	-0.45		-0.08
POLY(ARYLETHERETHERKET ONE) 60 0	0	NONE	-0.03	-0.45		-0.25
POLY(ARYLETHERETHERKETONE) 100 0	0	NONE	0.00	-0.40		0.03
	0	NONE	-0.01	-0.40	1	-0.03
	C	NONE	0.01	-0.53		-0.03
	0	NONE	0.00	-0.27		-0.03
	0	NONE	0.03	0.14	1	-0.04
0 0 0	0	NONE	-0.20	-0.41	-1.16	0.03

Note: a. Temperature conversions: 60 deg.C = 140 deg.F, 100 deg.C = 212 deg.F b. Qualitative scale: 0=no change, 1≖slight, 2=large, 3=dissolved, deformed or metted c. % Change = change in before/after measurements of plastics CHANGES IN PLASTICS IMMERSED IN 32 ISO VG MODIFIED POLYGLYCOL TABLE B-2

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I FOLVETTIMELIMICE MG	1 POLYPHTHALAMIDE POLYPHTHALAMIDE		-									
OTTATIVILATION OP D <thd< th=""> D D</thd<>	1 POLYPHTHALAMIDE 1 POLYPHTHALAMIDE	ATU		LATES	521	ING	5	AFIER AGING	CHANGE	CHANGE	CHANGE	CHANGE
POLYPTIMALAMICE 001 0 0144	1 POLYPHTHALAMIDE 1 POLYPHTHALAMIDE	(deg.	5	1	ſ	4	ء.		0	0	U.	Ü
OLVENTIALAMICE 100 0 0 CERMIDIATION 000 0000	1 POLYPHIMALAMIDE	5	00				2		-0.143	0		-0.314
NULTITINAMING NO NONE - 0.00 0.000	1 FULTERINALAMIUE							CREAM/BURNT	-0.544			-0.779
MAS NOME NOME OP14 1.040 MAS NOME OP14 OP1			3					LUCN	-0.097	0.000	0	-0.104
ACE_NIL Display Display <t< td=""><td>T</td><td></td><td>2</td><td></td><td></td><td></td><td></td><td></td><td>-3.518</td><td>0.214</td><td></td><td>-0.109</td></t<>	T		2						-3.518	0.214		-0.109
ACETAL DD DD <th< td=""><td>-</td><td></td><td>3</td><td></td><td></td><td></td><td></td><td></td><td>-0.160</td><td>-0.274</td><td></td><td>-0.171</td></th<>	-		3						-0.160	-0.274		-0.171
ACCERT NOME OCI ODE OCI ODE OCI ODE	-†		00,	5 0					-0.335	-0.274		-0.383
PRENDLC DODE DOT DODE COP1 <	1		3	- (-0413	-0.538	1	-2.373
Present Provide Prov Diversion Diversion <thdiversio< td=""><td></td><td></td><td>20</td><td>5</td><td></td><td></td><td></td><td></td><td>-0.370</td><td>-0.405</td><td></td><td>-2.279</td></thdiversio<>			20	5					-0.370	-0.405		-2.279
POLVENTORE 100 0 ULCIT/CGEAM 0.224 0.001 POLVENTORER 100 0			8	> (-0102	-0.541		- 0.068
P.L.YANNELMER TOD D D D DOME DOME <thdome< th=""> DOME <thdome< th=""> <thdom< td=""><td>_</td><td>RIDE</td><td>60</td><td>0</td><td>0</td><td></td><td>-</td><td></td><td>0.00</td><td>-0.407</td><td></td><td>-0.010</td></thdom<></thdome<></thdome<>	_	RIDE	60	0	0		-		0.00	-0.407		-0.010
POLYCARBONTE MODIFED POLYTHEWIKEE OXIDE MODIFED POLYTHEWIKEE OXIDE MODIFED POLYTHEWIKEE OXIDE MODIFED POLYTHEWIKEE OXIDE FOLYTHEWIKEE OXIDE FOLYTHEFWIKEE OXIDE FOLYTHEFWI		RIDE	10	0	0					790.0-		-0.050
NOVECARBONCE 100 0			80	•	0	0			-0.000	0.534		0.076
NONEE NONE ONE OID ONE OID OID<	i		100	0	0	0		NONE	-0.0/4			
HOLFED FOLYPHENVENE OXIDE 100 0 1 NONE 0.143 0.000 FOLYPEOPT/LENE 100 0 0 1/10/1E 0.143 0.000 0.000 FOLYPEOPT/LENE 100 0 0 0 0 0.143 0.043 0.000 FOLYPEOPT/LENE 100 0 0 0 0 0.143 0.143 0.014	+	ENE OXIDE	60	0	0	0	-	NONE	-0.103	-0.268		011.0
DOLYEPTICAL 1000 0 0 1001 0.001 <th0.001< th=""> <th0.001< th=""> <th0.001<< td=""><td>\uparrow</td><td>ENE OXIDE</td><td>100</td><td>0</td><td>0</td><td>0</td><td></td><td>NONE</td><td>-0.143</td><td>-0.589</td><td></td><td>0.2.0</td></th0.001<<></th0.001<></th0.001<>	\uparrow	ENE OXIDE	100	0	0	0		NONE	-0.143	-0.589		0.2.0
POLYPROPYTERIE 100 0 UCUTEMORE GRAV 100 0 0.001E 0.0126 0.0401 0.036 0.0401 0.036 0.0401 0.036 0.0401 0.036 0.0401 0.036 0.0401 0.036 0.0401 0.036 0.0401 0.036 0.0401 0.036 0.0401 0.036 0.0401 0.0361 <th0.000< th=""> 0.0361 <th0.000< th=""> <</th0.000<></th0.000<>	+		60	0	0	0	ē	NONE	-0.158			-0.018
POLYNETNYLETIE DO DO NONE -0.065 -0.401 0.000 POLYNETNYLETIE 00 0 0 NONE -0.053 0.031 0.031 POLYNETNIC SULFONE 00 0 0 NONE -0.053 0.031 0.031 POLYNETNIC SULFONE 00 0 0 0 0 0.075 0.134 0.731 0.031 POLYNETNIC SULFONE 00 0 0 0 0 0.005 0.031 <td0< td=""><td>T</td><td></td><td>100</td><td>0</td><td>0</td><td>0</td><td></td><td>LUCITE/MORE</td><td>-0.129</td><td></td><td></td><td>0.120</td></td0<>	T		100	0	0	0		LUCITE/MORE	-0.129			0.120
POLYMENT SULFORE 100 0 00NE 0.128 0.287 0.381 <th0.381< th=""> 0.381 <th0.381< th=""> <</th0.381<></th0.381<>	+		20	0	0	0			-0.085	-0.401		-0.375
POLYETINT. SWITCH 000 0 0 0.001E 0.001 0.134 0.731 0.731 POLYETINT. SWITCHSEE 000 0 0 0.001E 0.001 0.031 0.232 0.231	4 -		2001	c	0	0			-0.128	-0.267		-0.414
POLYETIMICE 100 0 10GHTANPLETAN -0.057 0.2334 0.301 POLYETIMICE 100 0 0 0 10GHTANPLETAN -0.057 -0.234 -0.053 -0.056	-		80	c	C	0			-0.071	0.134		-0.051
FOLYETHERNLENCE 00 0 00NE 0.028 0.0374 -0.024 <td>+</td> <td></td> <td>8 9</td> <td>0</td> <td>0</td> <td>0</td> <td></td> <td>LIGHT TAN/PALE</td> <td>-0.057</td> <td>-0.535</td> <td></td> <td>-0.125</td>	+		8 9	0	0	0		LIGHT TAN/PALE	-0.057	-0.535		-0.125
POLYTHERNLENC 100 0	+			c	C	0			-0.028			-0.011
POLYRETRALIONSOFTIATE OD OD </td <td>-</td> <td></td> <td>80</td> <td></td> <td>p c</td> <td>0</td> <td></td> <td></td> <td>-0.091</td> <td></td> <td> </td> <td>-0.025</td>	-		80		p c	0			-0.091			-0.025
POLYTETRAFTCOMC TOONE COORD	-		3			0			-0.040	0.416		0.099
FOLVAIME-MIDE 000 0 0 000 0	-		3 6	o c	0	0			-0.080	-0.312		0.311
FOLYAMIDE C0014 0000 1154 POLYAMIDE 100 0	+		202		0	0			0.029			0.329
POLYAMIDE 00 0 0 NONE 0014 0.266 0.765 POLYAMIDE 100 0	1		3 6	> c	C	0			-0.014			0.172
POLYAMIDE - INIDE Tool POLYAMIDE - INIDE Tool POLYAMIDE - INIDE Tool Cols	-+		2						0.014			0.213
POLYAMIDE POLYETHERINIDE POLYETHERINIDE POLYETHERINIDE POLYETHERINIDE POLYETHERINIDE POLYETHERINIDE POLYETHERINIDE POLYETHERINIDE POLYETHERINIDE POLYATY	-+		200						-0.085			0.080
POLYEITHENIMIDE 00 00 0 00 0 0016 0 0017 0.023 0.1306 0.016 0 0017 0.023 0.1306 0.016 0 0.017 0.026 0.016 0 0.016 0 0.017 0.026 0.016 0 0.017 0.017 0.016 0 0.017 0 0.017 0 0.016 0 0.017 0 0.017 0 0.016 0 0.017 0 0.016 0 0.017 0 0.016 0 0.017 0	-+		3						-0.028	-0.428		-0.165
POLYETHENIMIDE 00 0	-+								-0.023	-1.306		-0.179
MOUTIFIE/ FOLTET THENKETONE 100 0 0 NONE -0.063 -0.268 0.628 <th0.628< th=""></th0.628<>	-+		3	> c		0			-0.017			-0.144
MOUNTELT FLATION 00 0 0 0 0 0 0 1157 1157 POLYARYLETHERKETONE 100 0 0 0 0 0 0 135 0.136 0.135 0.135 0.135 0.153 0.153 0.153 0.153 0.153 0.153 0.153 0.153 0.153 0.153 0.153 0.153 0.153 0.153 0.153 0.153 0.153 0.157 0.157 0.157 0.157 0.157 0.153 0.152 0.0475 0.157 0.152 0.0475 0.157 0.152 0.0475 0.157 0.152 0.0475 0.157 0.152 0.0475 0.157 0.0166 0.0475 0.0167 0.0166 0.0475 0.04	+		801	C	c	0			-0.063			-0.288
FOLTATILETINEME.TOWE 100 0 0 0 NONE -0.029 0.136 0.388 -0.388 -0.384 0.155 -0.594 0.155 -0.475 -0.475 -0.475 -0.475 -0.475 -0.475 -0.475 -0.475 -0.467	+		3	c	0	0			-0.014	0.136		-0.097
POLYBUTYLENE TREPHTHALATE 60 0 0 0 NONE -0.115 -0.594 0.153 - POLYBUTYLENE TREPHTHALATE 60 0 0 0 0 0 0 0 0 157 -0.157	+		100		0	0			-0.029	0.136		-0.194
FOLTBOLITEME LEMENTIATION 0 0 0 NONE -0.271 -0.377 0.157 -0.377 0.157 -0.377 0.157 -0.377 0.157 -0.377 0.157 -0.377 0.157 -0.377 0.157 -0.377 0.157 -0.377 0.157 -0.377 0.157 -0.377 0.157 -0.377 0.157 -0.377 0.157 -0.377 0.157 -0.343 -0.3475 -0.347 0.157 -0.347 0.157 -0.347 0.157 -0.343 -0.3475 -0.3455 -0.3457 -0.3457 -0.3457 -0.3457 -0.3457 -0.3457 -0.3457 -0.3457 -0.3457 -0.3457 -0.3457 -0.3457 -0.3457 -0.3457 -0.34	-+-			c	G	0			-0.115	-0.594		-0.080
POLYBUITLENE FREFTIGATE 00 0 00 0 NONE 0.046 -0.943 -0.943 -0.943 -0.943 -0.943 -0.945 -0.149 -0.945 -0.945 -0.149 -0.945	-+		39	• c		C			-0.271	-0.377	0.157	-0.135
POLYIMIDE - UF 00 0	-+		2						0.000			-0.265
POLYIMIDE - UF 1.443 0.152 -0.472 POLYIMIDE - DF - ISO 60 0 0 0 1.443 0.152 -0.472 POLYIMIDE - DF - ISO 100 0 0 0 0 0 1.443 0.152 -0.457 POLYIMIDE - DF - ISO 100 0 0 0 0 0.059 -0.151 -0.467 POLYIARYLETHERETHERKETONE) 60 0 0 0 0 0.006 -0.014 -0.135 0.000 POLY(ARYLETHERETHERKETONE) 60 0 0 0 0 0.006 -0.014 -0.134 0.000 POLY(ARYLETHERETHERKETONE) 60 0 0 0 0 0.006 -0.053 -0.134 0.000 LIQUID CRYSTAL POLYMER 60 0 0 0 0 0.014 -0.658 -0.388 LIQUID CRYSTAL POLYMER 100 0 0 0 0.014 -0.231 -0.338 LIQUID CRYSTAL POLYMER <	-		89			G			-0.015	-0.149		-0.325
POLYIMIDE - DF - ISO 00 0 00NE -0.059 -0.151 -0.467 -0.467 POLYIMIDE - DF - ISO 100 0 0 0 0 0 0 100 0 100 0 0 0 1014 -0.135 0.000 -0.014 -0.135 0.000 -0.014 -0.135 0.000 -0.014 -0.135 0.000 -0.014 -0.134 0.000 -0.014 -0.134 0.000 -0.010 LIOUID CRYSTAL POLYMER -0.014 -0.058 -0.134 0.000 -0.001 -0.001 -0.014 -0.058 -0.038 -0.000 -0.001 -0.000 -0.001 -0.000 -0.000 -0.000 -0.001 -0.001 -0.001 -0.001 -0.000 <td< td=""><td>+</td><td></td><td>200</td><td></td><td></td><td>C</td><td></td><td></td><td>1.443</td><td></td><td></td><td>-0.439</td></td<>	+		200			C			1.443			-0.439
POLYIMIDE - DF - ISO 100 0	-+		8						- 0.059			-0.593
POLY(ARTLETIFICATIONE) 100 0 <td></td> <td>DVCTONEN</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-0.014</td> <td>-0.135</td> <td></td> <td>-0.078</td>		DVCTONEN	2						-0.014	-0.135		-0.078
POLY (ANTLET INCLASE INCIDENCE INCIDENCE) 00 0	-+-		89		C	0			-0.029	-0.134		- 0.088
LIQUID CRYSTAL FULTMER 100 0 0 0 0 0 0 0 0 0 0.014 -0.535 -0.388 -0.348 LIQUID CRYSTAL POLYMER 100 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				, c	c	C			-0.014			-0.001
LIQUID CATIONE FOLTMEN 60 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	+		200			C			0.014			-0.058
06 NYLON, FOLTAMIUE 100 0 0 0 0 VELLOW CREAM/BROWNE -0.245 -0.542 0.000 -	+		200		C				-0.187	-0.271		-0.298
	-+		8					-				-0.526
			201	5	2							

Note: a. Temperature conversions: 60 deg.C = 140 deg.F, 100 deg.C = 212 deg.F b. Qualitative scale: 0=no change, 1=slight, 2=large, 3=dissolved, deformed or metted c. % Change = change in before/after measurements of plastics

B-2

IANGES IN PLASTICS IMMERSED IN 32 ISO VG POLYPROPYLENE GLYCOL DIOL TABLE B-3
CHANGES

ATURE (a. c) MATURE (a. c) MATURE (b. c) MATURE (b. c) MATURE (c. c) ACETALL 000 0 </th <th>NO. TYPE</th> <th>LEMPER-</th> <th>- JIHAN</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>THOMAT POOL</th> <th>FUCEN</th>	NO. TYPE	LEMPER-	- JIHAN							THOMAT POOL	FUCEN
Optimization Optimization<		ATURE	ULATES	SNG NG	5 N	S	AFIER AGING	CHANGE	CHANGE	CHANGE	CHANGE
OCNFNTHALANDE OC OCNENTIALANDE OCI OCI OCNENTIALANDE OCI OCI OCNENTIALANDE OCI		(ດອອີ ເ)	-	<u>م</u>	2	à		Ů	v	ы. С	Ċ
DOVENTIMALINE DOVE DOVE <thdove< th=""> DOVE DOVE</thdove<>			.	2	2	ĺ	CREAM/GREEN TINT		0	o	-0.43
Name No N	1	86				0	NONE	- 0.49	0		
Sector 100 0 000E 0 0 000E 0	1					0	NONE	-0.06	1		-0.12
ACE ODE ODE <td>T</td> <td>80</td> <td></td> <td></td> <td></td> <td>0</td> <td>NONE</td> <td>-1.73</td> <td></td> <td></td> <td>3.91</td>	T	80				0	NONE	-1.73			3.91
ACCULATION 100 0 WIREGE 0.11 0.22 0.02 0.01 PRENDIC 100 0 0 0 0 0.11 <td>1</td> <td></td> <td></td> <td></td> <td></td> <td>0</td> <td>NONE</td> <td>- 0.12</td> <td></td> <td></td> <td>-0.17</td>	1					0	NONE	- 0.12			-0.17
PARENDIC FOLVERNINGERE LUGENE 00 0 0016 0.14 -0.49 -0.15 FOLVINUDERE LUGENE 00 0 0 0.001 0.014 -0.49 -0.15 FOLVINUDERE LUGENE 00 0 0 0.016 0.014 -0.49 -0.15 FOLVINUDERE LUGENE 00 0 0 0.016 0.014 -0.49 -0.15 FOLVINUDERE LUGENE 00 0 0 0 0.014 -0.49 -0.15 FOLVINEDRIE LUGENE 00 0 0 0 0.014 -0.49 -0.15 FOLVINEDRIE LUGENE 00 0 0 0 0 0.014 -0.49 -0.15 FOLVINEDRIE LUGENE 00 0 0 0 0 0 0.014 -0.44 -0.45 -0.15 FOLVINEDRIE LUGENE 000 0 0 0 0 0.014 -0.44 -0.15 FOLVINEDRIE LUGENE 000 0 0 0.0016	1	801				0	WHITE/OFF WHITE	0.28			0.47
FFERVICE FERVICE 100 0	1					0	NONE	-0.14			-1.41
FTAVINITIONE 0 0 0 UCLERROLOUDY 0.0 0 0.0 <	1	80				0	NONE	-0.47			-2.96
PAYNINIDER LICROFF MIT OLD	1	202				0	NONE	0.04			1
FUIX.MISTERTONING 000 0 CLEARIG.OUV 000 0 <t< td=""><td></td><td>86</td><td></td><td></td><td></td><td>0</td><td>LUCITE/OFF WHITE</td><td>0.12</td><td></td><td></td><td></td></t<>		86				0	LUCITE/OFF WHITE	0.12			
POLICHARGINITE FOLICIARIOUNICE FOLICIARIOUNICE MODIFED FOLIVENENCENCIO 100	1					0	CLEAR/CLOUDY	-0.03			-0.07
WORFED FOLYPHENNLENE CNOR 00 0 000	1	100				0	CLEAR/CLOUDY	-0.08			1.24
MODIFED FOLVITINITIONE 100 0 <td>-†-</td> <td></td> <td></td> <td></td> <td></td> <td>0</td> <td>NONE</td> <td>-0.04</td> <td></td> <td></td> <td>0.00</td>	-†-					0	NONE	-0.04			0.00
POLYERYTIKE 00 0 0 000 0.001 0.021 0.030 <th0.030< th=""> 0.030 <th0.030< t<="" td=""><td>1</td><td></td><td></td><td></td><td></td><td>0</td><td>NONE</td><td>-0.14</td><td>1</td><td></td><td></td></th0.030<></th0.030<>	1					0	NONE	-0.14	1		
POLYPROPYLENE 100 0 0 000 0	+					0	NONE	-0.01			
POLYNATICE OD	1	3				c	NONE	- 0.01			
POLYMATL SUCONE TOD OD	1					0	NONE	-0.09			
POLYETHYLENE TEREPRITALATE 000 0 000 <td>+</td> <td>8</td> <td></td> <td></td> <td></td> <td>0</td> <td>NONE</td> <td>-0.10</td> <td></td> <td></td> <td></td>	+	8				0	NONE	-0.10			
POLYETHYLENE TOD POLY POLYETHYLENE TOD POLY POLYETHYLENE TOD POLY	+					o	NONE	-0.01			
POLYPHENVLENE 000 0 NONE 0.00 0.00 0.01		8				0	NONE	- 0.04			-0.06
POLYNENTENSOLFILE 000 0 0 000 0	+					0	NONE	00.0			-0.04
FOLVETRENTLORGETIVE 00 0 00NE 0.02 0.10 0.110	+	86				0	NONE	-0.07			1
POLYTETRAATLORGETHYTENE 100 0 0100 0-130 0-101 -1-36 POLYTETRAATLORGETHYTENE 100 0 </td <td>1</td> <td></td> <td></td> <td></td> <td></td> <td>0</td> <td>NONE</td> <td>-0.02</td> <td></td> <td></td> <td>0.02</td>	1					0	NONE	-0.02			0.02
POLIVAIMIDE MONE 0	-	810				0	NONE	0.30		ŀ	
FOLVAMIDE IONE 000 00 0	+					0	NONE	-0.01	1		
POLYAMIDE – IMIDE POLYAMIDE – IMIDE POLYAMIDE – IMIDE POLYAMIDE – IMIDE 00 0 00 0 00 0 00 <	+	100				0	NONE	00.00			0.18
POLYAMIDE - IMIDE 100 0	1	09				0	NONE	0.01			0.09
POLVETHERIMIDE 60 0	1	100				0	NONE	-0.03		1	
POLYETHERMIDE 100 0	1	60				0	NONE	-0.01			
MODIFIED POLYETHERIMIDE 60 0 0 NONE -0.02 -0.37 0.63 MODIFIED POLYETHERIMIDE 100 0 0 0 0 0 0.01 0.03 POLYARYLETHERKETONE 100 0 0 0 0 0 0.01 0.03 0.03 POLYARYLETHERKETONE 100 0 0 0 0 0 0.01 0.03 0.03 POLYARYLETHERKETONE 100 0 0 0 0 0 0.05 0.04 <t< td=""><td>+</td><td>10</td><td></td><td></td><td></td><td>0</td><td>NONE</td><td>-0.01</td><td></td><td></td><td>-0.23</td></t<>	+	10				0	NONE	-0.01			-0.23
MODIFIED FOLYETHERIMIDE 100 0 <td>+</td> <td>99</td> <td></td> <td></td> <td></td> <td>0</td> <td>NONE</td> <td>-0.02</td> <td></td> <td>-</td> <td>-0.25</td>	+	99				0	NONE	-0.02		-	-0.25
POLYARYLETHERKETONE 60 0 0 0.01 0.01 0.00 -0.39 POLYARYLETHERKETONE 100 0 0 0 0 0 0.01 0.00 -0.39 POLYARYLETHERKETONE 100 0 0 0 0 0 0.01 0.02 -0.39 POLYARYLETHERKETONE 100 0 0 0 0 0 0.01 -0.02 -0.14 1.17 POLYBUTYLENE TEREPHTHALATE 60 0 0 0 0 0 0.01 0.01 0.01 POLYBUTYLENE TEREPHTHALATE 100 0 0 0 0 0 0.01 0.03 -0.30 -0.30 POLYIMIDE - DF 100 0 0 0 0 0.00 0.00 0.01 0.01 0.01 0.01 -0.41 POLYIMIDE - DF 100 0 0 0 0 0.00 0.00 0.01 0.01 0.01 0.01 0.0	+-	100				0	NONE	-0.04	1		-0.26
POLYARYLETHERKETONE 100 0 0 0 NONE -0.06 -0.14 1.17 POLYARYLETHERKETONE 60 0 0 0 0 0 0 -0.05 -0.122 -0.161 POLYBUTYLENE TEREPHTHALATE 60 0 0 0 0 0 0.05 -0.22 -0.26 -0.23 -0.61 POLYBUTYLENE TEREPHTHALATE 60 0 0 0 0 0.00 -0.14 -0.23 -0.23 -0.61 POLYIMIDE - DF 0 0 0 0 0 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.00 0 0.01 0.01 0.01 0.01 0.01 0 0.01 0.01 0.01 0.01 0.01 0.01	+-	60				0	NONE	0.01			-0.14
POLYBUTYCENE TEREPHTHALATE 60 0 0 00NE -0.05 -0.22 -0.46 POLYBUTYCENE TEREPHTHALATE 100 0 0 0 0 0 0 00NE -0.25 -0.46 POLYBUTYCENE TEREPHTHALATE 100 0 0 0 0 0 0 000 -0.25 -0.46 POLYBUTYCENE TEREPHTHALATE 100 0 <td< td=""><td>-+</td><td>100</td><td></td><td></td><td></td><td>0</td><td>NONE</td><td>90.09</td><td></td><td></td><td>-0.16</td></td<>	-+	100				0	NONE	90.09			-0.16
POLYBUTYTENE TEREPHTHALATE 100 0	-	60				0	NONE	-0.05			-0.17
POLYIMIDE - DF 60 0 0 0 NONE -0.03 -0.30 -0.33 -0.34 -0.33 -0.34 -0.33 -0.34	+	100				0	NONE	-0.14			
POLYIMIDE - DF 100 0	+-	60				0	NONE	-0.03			
POLYMIDE DF - ISO 60 0 0 0 NONE -0.45 -0.45 -0.47 POLYMIDE DF - ISO 100 0 0 0 0 0 -0.04 -0.15 -0.47 POLYMIDE DF - ISO 100 0 0 0 0 -0.05 -0.15 -1.41 POLYMIDE DF - ISO 100 0 0 0 0 -0.05 -0.15 -1.41 POLYMIDE DF - ISO 100 0 0 0 0 -0.16 -0.15 -1.41 POLYMETHERETHERKETONE) 60 0 0 0 0 0.03 -0.27 -0.75 POLYMER 60 0 0 0 0 0.03 -0.27 -0.76 LIQUID CRYSTAL POLYMER 60 0 0 0 0 0.01 -0.17 -0.17 -0.17 LIQUID CRYSTAL POLYMER 100 0 0 0 0 0.01 -0.12 -0.17 -0.13 <	+	100				0	NONE	00.0			62.0-
POLYIMIDE - DF - ISO 100 0 0 0 NONE -0.06 -0.15 -1.41 POLYIMIDE - DF - ISO 60 0	+-	60				0	NONE	-0.04			-0.49
POLY(ARYLETHERETHERKETONE) 60 0 0 0 00NE -0.10 -0.14 0.00 POLY(ARYLETHERETHERKETONE) 100 0 0 0 0 0 0 -0.13 -0.27 -0.78 POLY(ARYLETHERETHERKETONE) 100 0 0 0 0 0 0.03 -0.27 -0.78 POLY(ARYLETHERETHERKETONE) 60 0 0 0 0 0.03 -0.27 0.00 LIQUID CRYSTAL POLYMER 60 0 0 0 0 0.01 -0.13 0.00 LIQUID CRYSTAL POLYMER 60 0 0 0 0 0.01 -0.19 -0.13 0.00 66 NYLON POLYAMDE 60 0 0 0 0.01 -0.19 -0.54 0.00	-+-	100				0	NONE	90.0-		I	-0.62
POLY(AFYLETHERETHERKETONE) 100 0 0 0 NONE -0.03 -0.27 -0.78 POLY(AFYLETHERETHERKETONE) 100 0 0 0 0 0 0.03 -0.27 -0.78 LIQUUID CRYSTAL POLYMER 60 0 0 0 0 0.03 -0.27 0.00 LIQUUID CRYSTAL POLYMER 100 0 0 0 0 0.01 -0.13 0.00 LIQUUID CRYSTAL POLYMER 50 0 0 0 0 0.01 -0.19 -0.13 0.00 S6 NYLON. POLYAMIDE 50 0 0 0 0 0.01 -0.24 0.00 As NY ON POLYAMIDE 100 0 0 0 0 -0.23 -0.41 -0.39	+	60				0	NONE	-0.10			
FOLIOUT CRYSTAL POLYMER 60 0 0 0 NONE 0.03 -0.27 0.00 LIQUID CRYSTAL POLYMER 100 0 0 0 0 0 0.01 -0.13 0.00 LIQUID CRYSTAL POLYMER 100 0 0 0 0 0.01 -0.13 0.00 LUQUID CRYSTAL POLYMER 60 0 0 0 0 0.01 -0.13 0.00 LUQUID CRYSTAL POLYMER 60 0 0 0 0.01 -0.19 -0.54 0.00 66 NYLON. POLYAMIDE 100 0 0 0 0 0.23 -0.41 -0.39	+	1001				0	NONE	- 0.03		1	
LEGUID CRYSTAL POLYMER 100 0 0 0 NONE 0.01 -0.13 0.00 LIQUID CRYSTAL POLYMER 60 0 0 0 10 0.01 -0.13 0.00 66 NYLON, POLYAMIDE 60 0 0 0 19 -0.19 -0.54 0.00 66 NYLON, POLYAMIDE 100 0 0 0 19 -0.19 -0.54 0.00 66 NYLON, POLYAMIDE 100 0 0 0 19 -0.23 -0.41 -0.39	+	60				0	NONE	0.03			-0.01
CHOLON TOTAL 60 0 0 VELLOW CREAM/YELLOW -0.19 -0.54 0.00 66 NYLON, POLYAMIDE 100 0 0 0 VELLOW CREAM/YELLOW -0.19 -0.54 0.00 66 NYLON, POLYAMIDE 100 0 0 0 0 -0.23 -0.41 -0.39	+	100				0	NONE				-0.05
A VIENT OF POINT OF P	+	60				0	YELLOW CREAM/YELLOW	1		0	-0.45
	+-	1001			0	0	YELLOW CREAM/YELLOW	0		0	-0.50

Note: a. Temperature conversions: 60 deg.C = 140 deg.F, 100 deg.C = 212 deg.F b. Qualitative scale: 0=no change, 1=slight, 2=large, 3=dissolved, deformed or metted c. % Change = change in before/atter measurements of plastics

CHANGES IN PLASTICS IMMERSED IN 32 ISO VG BRANCHED ACID POLYOL ESTER TABLE B-4

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1 POLYPHTHALAMIDE 60 1 POLYPHTHALAMIDE 60 2 ABS 100 3 ACETAL 60 3 ACETAL 60 3 ACETAL 60 4 PHENOLIC 100 5 POLYNNYLIDENE FLUORIDE 60 6 POLYNNYLIDENE FLUORIDE 60 7 POLYNNYLIDENE FLUORIDE 100 7 POLYNNYLIDENE FLUORIDE 60 7 POLYNNYLIDENE FLUORIDE 60 7 POLYNNYLIDENE FLUORIDE 60 7 MODIFIED POLYPHENYLENE OXIDE 60 7 POLYRAYL SULFONE 60 9 POLYRAYL SULFONE 60 10 POLYFHYLENE TEREPHTHALATE 100 11 POLYFHYLENE TEREPHTHALATE 100 11 POLYFHYLENE TEREPHTHALATE 60 11 POLYFHYLENE TEREPHTHALATE 60 11 POLYFHYLENE TEREPHTHALATE 100 11 POLYFHYLENE TEREPHTHALATE 100 10 POLYFHYLENE TER				0 0 0 •	CREAM/GREEN TINT CREAM/DULL CREAM	CHANGE c. -0.03	CHANGE c. -0.135 -0.053	CHANGE c. 0.000	H H H
POLYPHTHALAMIDE A POLYPHTHALAMIDE A ABS ABS ABS ACETAL ABS ACETAL ACETAL ACETAL PHENOLIC POLYNINYLIDENE FLUORIDE POLYNINYLIDENE FLUORIDE POLYNINYLIDENE FLUORIDE POLYNINYLIDENE FLUORIDE POLYNINYLIDENE FLUORIDE POLYNINYLIDENE FLUORIDE POLYNINYLIDENE FLUORIDE POLYRAPUSULENE POLYPHENYLENE POLYRAPUSULENE POLYPHENYLENE POLYRAPUSULENE POLYPHENYLENE POLYPHENYLENE POLYPHENYLENE POLYPHENYLENE POLYPHENYLENE POLYPHENYLENE POLYPHENYLENE POLYPHENYLENE POLYPHENYLENE					CREAM/GREEN TINT CREAM/DULL CREAM	-0.03	0.135 -0.135 -0.053	0.000	
POLYPHTHALAMIDE POLYPHTHALAMIDE ABS ABS ABS ABS ABS ACETAL ACETAL ACETAL POLYNINYLIDENE FLUORIDE POLYNINYLIDENE FLUORIDE POLYNINYLIDENE FLUORIDE POLYCARBONATE POLYCARBONATE POLYCARBONATE POLYCARBONATE POLYCARBONATE POLYCARBONATE POLYPHENYLENE OXIDE POLYPHENYLENE			00000	000	CREAM/GREEN LINI CREAM/DULL CREAM	-0.03	-0.135 -0.135 -0.053	0.00	
POLYPHTHALAMIDE ABS ABS ABS ACETAL AC			0000	00	CREAM/DULL CHEAM		-0.053		000
ABS ABS AGETAL ACETAL ACETAL ACETAL PHENOLIC POLYWINYLIDENE FLUORIDE POLYWINYLIDENE FLUORIDE POLYORBONATE POLYORBONATE POLYORBONATE POLYORDATLENE POLYOROPYLENE POLYPROPYLENE POLYARYL SULFONE POLYARYL SULFONE POLYPHENYLENE TEREPHTHALATE POLYPHENYLENE TEREPHTHALATE POLYPHENYLENESULFIDE POLYPHENYLENESULFIDE POLYPHENYLENESULFIDE		<u> </u>	000	0		84.0-	- 550.0-		
AGETAL ACETAL PHENOLIC PHENOLIC PHENOLIC POLYVINYLIDENE FLUORIDE POLYVINYLIDENE FLUORIDE POLYVINYLIDENE FLUORIDE POLYVARBONATE POLYVARBONATE POLYPROPYLENE POLYPROPYLENE POLYPROPYLENE POLYPRONYLENE POLYPRONYLENE POLYPHENYLENE POLYPHENYLENE POLYPHENYLENE POLYPHENYLENESULFIDE POLYPHENYLENESULFIDE POLYPHENYLENESULFIDE			00	+	NONE	-0.119		1	
AGETAL AGETAL AGETAL AGETAL AGETAL PHENOLIC PHENOLIC POLYNINYLIDENE FLUORIIDE POLYNINYLIDENE FLUORIIDE POLYCARBONATE POLYCARBONATE POLYCARBONATE POLYCARBONATE POLYCARBONATE POLYCRAN SULFONE POLYCRAN SULFONE POLYCHAYLENE TEREPHTHALATE POLYCHAYLENE TEREPHTHALATE POLYCHAYLENE TEREPHTHALATE POLYCHAYLENE TEREPHTHALATE POLYCHAYLENE TEREPHTHALATE POLYCHAYLENE TEREPHTHALATE POLYCHAYLENE TEREPHTHALATE POLYCHAYLENE TEREPHTHALATE			o	0	CREAM/FLESH CREAM	-2.231	0.748		BLC.C
ACE TAL ACETAL PHENOLIC PENENOLIC POL YVINYLIDENE FLUORIDE POL YVINYLIDENE FLUORIDE POLYCARBONATE POLYCARBONATE POLYCARBONATE POLYCARBONATE POLYCARBONATE POLYCARBONATE POLYCARDONATE POLYCARDONATE POLYARYL SULFONE POLYARYL SULFONE POLYARYL SULFONE POLYPHENYLENE TEREPHTHALATE POLYPHENYLENE TEREPHTHALATE POLYPHENYLENESULFIDE POLYPHENYLENESULFIDE				0	NONE	-0.044	0.137	0.787	-0.114
ACE IAL PHENOLIC PUTYNIVLIDENE FLUORIDE POLYNINYLIDENE FLUORIDE POLYCARBONATE POLYCARBONATE POLYCARBONATE POLYCARBONATE POLYCARBONATE POLYCARDONTENE POLYPROPYLENE POLYPROPYLENE POLYARYL SULFONE POLYARYL SULFONE POLYPHENYLENE TEREPHTHALATE POLYPHENYLENE TEREPHTHALATE POLYPHENYLENESULFIDE POLYPHENYLENESULFIDE			C	C	NONE	-0.160	0.000	0.394	-0.221
PHENOLIC POLYVINYLIDENE FLUORIDE POLYVINVLIDENE FLUORIDE POLYVARBONATE POLYCARBONATE POLYCARBONATE POLYPROPYLENE MODIFIED POLYPHENYLENE OXIDE MODIFIED POLYPHENYLENE POLYPROPYLENE POLYPROPYLENE POLYPHENYLENE SULFONE POLYFENYLENE TEREPHTHALATE POLYPHENYLENESULFIDE POLYPHENYLENESULFIDE POLYPHENYLENESULFIDE				C	NONE	-0.100	- 0.402	-0.382	-0.740
PHENOLIC POLYVINYLIDENE FLUORIDE POLYVINYLIDENE FLUORIDE POLYCARBONATE POLYCARBONATE MODIFED POLYPHENYLENE OXIDE MODIFED POLYPHENYLENE OXIDE POLYPROPYLENE POLYPHENYLENE POLYPHENYLENE POLYPHENYLENE TEREPHTHALATE POLYPHENYLENE TEREPHTHALATE POLYPHENYLENE TEREPHTHALATE POLYPHENYLENE TEREPHTHALATE POLYPHENYLENE TEREPHTHALATE POLYPHENYLENESULFIDE					NONE	-0.527			-3.182
POLYWNYLIDENE FLUORIDE POLYVANNYLIDENE FLUORIDE POLYCARBONATE POLYCARBONATE POLYCARBONATE POLYCARBONATE POLYPROPYLENE POLYPROPYLENE POLYPROPYLENE POLYPROPYLENE POLYPROPYLENE POLYPROPYLENE POLYPROPYLENE POLYPHENYLENE POLYPHENYLENESULFIDE POLYPHENYLENESULFIDE POLYPHENYLENESULFIDE					NONE	0.058	0 272		0,000
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POLYPROPYLENE POLYARYL SULFONE POLYARYL SULFONE POLYARYL SULFONE POLYETHYLENE TEREPHTHALATE POLYETHYLENE TEREPHTHALATE POLYPHENYLENESULFIDE POLYPHENYLENESULFIDE	0000	0	0	0	NONE	0.029			0.073
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POLYARYL SULFONE POLYETHYLENE TEREPHTHALATE POLYETHYLENE TEREPHTHALATE POLYPHENYLENESULFIDE POLYPHENYLENESULFIDE	0		C	0	NONE	-0.014	1	-0.772	-0.122
POLYETHYLENE TEREPHTHALATE POLYETHYLENE TEREPHTHALATE POLYPHENYLENESULFIDE POLYPHENYLENESULFIDE POLYPHENYLENESULFIDE	5		c	C	NONE	-0.028	0.404	-0.388	-0.032
POLYETHYLENE TEREPHI HALAI E POLYPHENYLENESULFIDE POLYPHENYLENESULFIDE DOLYTPHENYLENESULFIDE	- -				NONE	-0.028		-0.778	-0.083
POLYPHENYLENESULFIDE POLYPHENYLENESULFIDE					NONE	0.000		0.944	-0.023
		ō		0	NONE	-0.102	0.214	0.001	-0.009
				c	NONE	0.140	1.140	0.000	
					NONE	0.180	0.403	0.442	
					NONE	-0.029	0.135	0.000	0.251
				e	NONE	000.0	0.135	1.163	0.048
	-				NONF	620.0	0.135	-0.382	0.224
					NONE	-0.043			
					NONF	-0.091			-0.045
					NON	-0.034		0000	-0.131
	2				NONE	-0.028	-0.428	0.156	0.006
					NONE	-0.080	-0.106	0.469	-0.040
					NONE	-0.014	-0.001	0.794	-0.135
					NONE	-0.058		0.000	-0.199
		þ	C		NONE	0.023	0.054	-0.429	- 0.022
					NONE	-0.184	-0.054	0.308	-0.067
POLYBUTYLENE LEKERHIMALATE		þ	C		NONE	0.015		0.000	0.064
POLYIMIDE - UF					NONE	0.029	-0.149	0.962	-0.154
					NONE	-0.015	0.000	-0.476	-0.298
-+					NONF	-0.074	0.000	0.485	-0.613
	5 0				NONE	0.000	-0.270	0.385	0.030
					NONE	-0.057	0.000	-0.772	0.007
POLY(ARYLETHEHEIHEHKEIUNE)					NONE	0.042	0.135	0.391	-0.008
-		o c	0		NONE	-0.014	0.403	0.000	1
			C		NONE	0.000	0.000	-1.136	0.027
23 66 NYLON, POLYAMIDE					VELLOW CREAM/DARKER		'	0.000	-0.147

Note: a. Temperature conversions: 60 deg.C = 140 deg.F, 100 deg.C = 212 deg.F b. Qualitative scale: 0=no change, 1=slight, 2=large, 3=dissolved, deformed or metted c. % Change = change in before/after measurements of plastics

NO. TYPE	TEMPER- ATURE (dea C)	PARTIC- ULATES	CRACK - ING	CRAZ- ING	SOFTEN- ING	COLOR CHANGE AFTER AGING	AGE 4GE	H H H H	NESS	WEIGHT CHANGE
	in es	ف	ف	ė	٩		U U U	-0 27	-039	-0.32
	99	0	0	0	0	CREAM/GREEN IN	8-0-	0.07	66.01	-0.79
+	100	0	0	0	0	CHEAM/GREEN IINI		810	0.62	- 0.03
1	60	0	0	0	0	CREAM/WHIE FILM		2 2 2	10.56	13.17
	100	2	0	0	0	CREAM/OFF WHILE	- 20	-0.41	000	-0.24
2 ADS	8	0	0	0		NONE	0.20	-014	0.39	-0.26
1	100	0	0	0		NON		-0.13	-0.36	-0.76
1	00	0	0	0		NONE		0.13	-0.77	-2.92
+	100		0	0		NONE	10.0-	0.10	0.70	- 0.01
	09		0	0		NONE		10.54	0.79	0.07
1	100		0	0		NONE	2 0	100	-0.15	-0.02
-	00		0	0	0	NONE	-0.0	-0.40	1.53	0.80
1	100		0	0		CLEAR/FOGGY	5 0	0.90	1 25	0 13
6 POLYCARBUNAIE			0	0		NONE	8.0	10.01	9.34	1.91
			0	0		NONE	11.0-	0.64	0.30	0.28
-1				0		NONE	8.5		0.0	1 97
1	100	0	0	0		NONE	0.40 0.40	-0.67	-0.38	-0.29
	60		0	0	•	NONE		40-	00 0	-0.52
+	100	0	0	•	•			-040		-0.09
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+	100					•	800	ł	1.16	0.25
+	00						0.01		-0.36	0.11
+	100						00.0		0.38	0.1
+	60						00 0		-0.38	0.08
+	100						-0.03		0.63	-0.07
+	60						60 0-		0.00	-0.12
+	100	0					-0.05		-0.31	-0.12
+	60						80.01		0.16	-0.17
+-	100						-0.01	-0.14	0.78	- 0.23
+-	8						0.00	0.14		-0.19
1	-						-0.16	-0.32	0.16	-0.05
18 POLYBUTYLENE TEREPHTHALATE	1						0.30	- 0.65	0.00	-0.10
+-							10.04	1		-0.22
+-	+						-0.03	0.00		-0.32
1	5						-0.06	-0.15		
+	80	0					-0.07			
+	-						0.01		1	
+							-0.01	-0.40		
1							0.03		1	1
-	00						0.0			
ţ	8				0		-0.13	o I		1
-	00						-0.29	-0.27	-0.38	
23 66 NYLON, POLYAMIDE	100							r		
	Note:		conversions: 60 deg.C	9g.C = 140	140 deg.F, 100 deg.C	eg.C = 212 deg.F				
	b. Qualitative		ale: 0=no change, 1=slight, 2=large.	. 1=slight, 2	:=large, 3=d	scale: 0=no change, 1=slight, 2=large, 3= dissolved, deformed or metred	ē			
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CHANGES IN PLASTICS IMMERSED IN 22 ISO VG POLYOL MIXED-ACID ESTER TABLE B-5

B-5

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MOUNTEXPONDING NONE	100
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FOLYMINE FOLYMINE 60 0 0 0 NONE POLYBUTYLENE TERFENTIAL 60 0 0 0 0 0 NONE POLYBUTYLENE TERFENTIAL 60 0 0 0 0 0 NONE POLYBUTYLENE TERFENTIAL 60 0 0 0 0 NONE POLYBUTYLENE TERFENTIAL 60 0 0 0 0 NONE POLYIMIDE - DF 100 0 0 0 0 NONE POLYIMIDE - DF 100 0 0 0 NONE - POLYIMIDE - DF -ISO 60 0 0 0 NONE - POLYIMIDE - DF -ISO 60 0 0 0 NONE - POLYIMIDE - DF -ISO 60 0 0 0 NONE - POLYIMIDE - DF -ISO 60 0 0 0 NONE - LIQUID CRYSTAL POLYMER 60 0	100
FOLYBUTICARE TEREPHTHIATE 100 0 0 0 0 NONE 1 POLYBUTICARE TEREPHTHATE 100 0 0 0 0 0 NONE 1 POLYIMIDE -DF 00 0 0 0 0 0 NONE 1 POLYIMIDE -DF 100 0 0 0 0 0 NONE 1 POLYIMIDE -DF 150 0 0 0 0 0 NONE 1 POLYIMIDE -DF -ISO 100 0 0 0 0 0 NONE 1 POLYIMIDE -DF -ISO 100 0 0 0 0 0 NONE 1 POLYIMIDE -DF -ISO 100 0 0 0 0 NONE 1 POLYIMIDE -DF -ISO 100 0 0 0 0 NONE 1 1 POLYIMIDE -DF -ISO 100 0 0 0 0 NONE 1	0
FOLTBOT LEME FOLTBOT LEME<	100
FOLTIMIDE – DF 100 0 0 0 0 NONE POLYIMIDE – DF – ISO 60 0 0 0 0 0 0 NONE POLYIMIDE – DF – ISO 60 0 0 0 0 0 NONE POLYIMIDE – DF – ISO 100 0 0 0 0 NONE POLYIMIDE – DF – ISO 100 0 0 0 0 NONE POLYIARYLETHERETHERKETONE) 60 0 0 0 0 NONE POLYIARYLETHERETHERKETONE 100 0 0 0 0 NONE - LIQUID CRYSTAL POLYMER 60 0 0 0 0 NONE - LIQUID CRYSTAL POLYMER 60 0 0 0 0 NONE - LIQUID CRYSTAL POLYMER 60 0 0 0 0 NONE - 66 NYLON, POLYAMIDE 100 0 0 0 0	
FOLYMIDE – DF NONE NONE POLYMIDE – DF – ISO 60 0 0 0 NONE POLYMIDE – DF – ISO 100 0 0 0 NONE POLYMIDE – DF – ISO 100 0 0 0 NONE POLYMARE – DF – ISO 100 0 0 0 NONE POLYMARE – DF – ISO 100 0 0 0 NONE POLYMARE – DF – ISO 100 0 0 0 NONE POLYMARE – DE – ISO 100 0 0 0 NONE LIQUID CRYSTAL POLYMER 60 0 0 0 0 NONE LIQUID CRYSTAL POLYMER 100 0 0 0 0 NONE 66 NYLON, POLYAMIDE 100 0 0 0 0 NONE	100
POL VIMIDE - UF - ISO 100 0 0 0 0 0 NONE POL VIMIDE - UF - ISO 100 0 0 0 0 0 NONE POL VIMIDE - UF - ISO 100 0 0 0 0 NONE POL VIMIDE - UF - ISO 00 0 0 0 0 NONE POL VIANTETHERKETONE) 60 0 0 0 NONE NONE LIQUID CRYSTAL POLYMER 50 0 0 0 0 NONE LIQUID CRYSTAL POLYMER 100 0 0 0 0 NONE EG NYLON, POLYAMIDE 60 0 0 0 0 NONE 66 NYLON, POLYAMIDE 100 0 0 0 0 NONE	
POL VIMIDE - UF - ISO 100 0 0 0 0 0 0 NONE POL V(ARYLETHERETHERKETONE) 60 0 0 0 0 0 NONE POL V(ARYLETHERETHERKETONE) 60 0 0 0 0 NONE LIQUID CRYSTAL POLYMER 60 0 0 0 0 NONE LIQUID CRYSTAL POLYMER 60 0 0 0 0 NONE LIQUID CRYSTAL POLYMER 100 0 0 0 0 NONE LIQUID CRYSTAL POLYMER 100 0 0 0 0 NONE 66 NYLON, POLYAMIDE 100 0 0 0 0 NONE	00
POLY(ARYLETHERETHERETURE) 00 0 </td <td></td>	
POLY(ARYLE ITHEME I THEME I ONE) TOO O O O NONE LIQUID CRYSTAL POLYMER 60 0 0 0 0 NONE LIQUID CRYSTAL POLYMER 100 0 0 0 0 NONE LIQUID CRYSTAL POLYMER 100 0 0 0 0 NONE 66 0 0 0 0 0 0 NONE 66 NCON, POLYAMIDE 100 0 0 0 0 -	
LIQUID CRYSTAL POLYMER 00 0	
LIQUID CRYSTAL POLYMER 100 0 <td></td>	
a. Temperature conversions: 60 deg. $C = 140$ deg. F , 100 deg. $C = 212$ deg. F	DO DO
.ele.	;
= 140 deg.F, 100 deg.C sijoht, 2≠large, 3=dissolv	

CHANGES IN PLASTICS IMMERSED IN 32 ISO VG POLYPROPYLENE GLYCOL BUTYL MONO ETHER

B-6

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CHANGES IN PLASTICS IMMERSED IN 32 ISO VG ALKYLBENZENE TABLE B-7

NO.	TYPE	TEMPER-	PARTIC-	CRACK -	CRAZ-	SOFTEN-	COLOR CHANGE	AVERAGE%	AVERAGE%	AVERAGE%	AVERAGE% WEIGHT
		ATURE	ULATES	SNI	SZ				CHANGE	CHANGE	CHANGE
			<u>ہ</u>	1	<u>م</u>	2			5	j j	υ
		8	ġ				CREAM/GEEEN TINT	-0.09	-0.27	0.00	-0.08
-	POLYPHIHALAMIUE							-0.69	1	-0.39	-0.51
1	POLYPHIMALAMIUE							-0.09	-0.13	0.78	-0.13
	ABS	001					CREAM/O			3.40	5.57
1	ABS		- c				NONE				-0.15
1	ACETAL	100		0				-0.57	- 0.55	0.39	-0.58
1							NONE	-0.01	-0.27	00.00	-0.15
1		100		0				-0.40	1		-2.62
1		09		0				2.90			2.96
0 4	POLITINI LIDENE FLOORIDE	100		0				2.83	1.49		2.82
╈	POLYNA LIDENE LOOMER	60		0				-0.09		1	0.02
+	POLYCARBONATE	100		0	0	0		-0.12			0.02
0 1	MODIEED POLYPHENYLENE OXIDE			0		0		-0.08	1		0.07
~~	MODIFIED POI YPHENYLENE OXIDE		0	0		0	GREY	-0.01			5.48
T				0	0			0.40		1	1.53
+		100		0	0	0		2.83			8.83
1	POLY ARVI SUI FONF	09		0				0.01		0.78	0.40
+	POLIARVI SIII FONF	100		0	0		NONE	0.03			0.09
+	POLIZINI ENE TEREPHTHALATE	60		0			0 NONE	-0.01			-0.07
+	POLICINI CHE TEREPHTHALATE	100		°	0			-0.04	-0.40		-0.14
+		60		0	0			-2.75			-2.88
+	POLIT RENTLENESSEL ISC	100	0	0		0	CHOCOLATE/UGHTER	-3.05		-5.54	-2.83
+		60		0	0	0	NONE	0.02			-0.04
+		100		0	0			0.0	'	'	0.00
+		60		0		0	NONE	0.03			0.24
+		100	0	0			NONE	-0.01		1	0.13
+		60		0				0.00	0.00		0.20
+		801		0			NONE	-0.03	00.0		0.10
-+			c					-0.04	-0.48		0.12
-		8						-0.07	-0.69		0.07
-+								-0.06	0.16		0.01
1	MOUIFIEU FOLTETITETIMIUE	86						-0.16	-0.43	1	-0.24
-†	MUDIFIEU FULTETAENIMUC			0				0.01	0.14	0.00	-0.03
-+-		1001		°			NONE	0.01	0.14		-0.13
+	POLIANTLETHENKEIUNE		0	0	0		NONE	-0.10	1		-0.02
•	POLTBUT TENE TEREPHTHALATE	100		0	0		NONE	-0.19			-0.08
+		8		0	0	0	NONE	-0.61	'		-0.05
		100		0	0	0		-0.04	'	'	0.01
-		60	0	0	0			0.01	0.00		-0.06
1	POLYIMIDE - DF - ISO	100		0				-0.06	00.0		40.04
+	POI YIARVI ETHERETHERKETONE)	60		0	0	0		-0.04	1	0.0	4 0.0
+	POLY(ARYLETHERETHERKETONE)	100	0	0				-0.06	1	-0.39	-0.02
+	I IDUID CRYSTAL POLYMER	60		0	0			0.01	0.00	-1.89	0.0
+	I IDIIID CRYSTAL POLYMER	100		0	0	0		-0.07		-2.28	-0.05
+	ER NYI ON POLYAMIDE	60		0	0			0	'	10.39	2 0.0
+	66 NYLON POLYAMIDE	100		0	0	0	NONE	-0.22	-0.14	-0.39	-0.12
1											
		Note:									
		a. Temperatu	=	re conversions: 60 deg.C	$g_{\rm c} = 140 c_{\rm c}$	= 140 deg.r, 100 deg.C	eg.C = 212 deg.r incohod deformed or mette	Ţ			
E		b. Qualitative		no cnange.	i ≡siigni, ∠	-iaige, o-ia mente of ni	scale: U=no cnange, 1=sugni, 2-riaige, 0-ruissoiveu, ueionineu oi nionou - t === i= t -tractoten maanitemente of alective	ł			
}-		c. % Change	11		change in perore/aner measurements of plasma		deuce.		-		
-											

B-7

CHANGES IN PLASTICS IMMERSED IN HCFC-22 (R-22) TABLE C-1

NO	TYPE	TEMPER-	PARTIC-	Ü	CRAZ-	SOFTEN-	COLOR CHANGE	ж				AVERAGE%
		ATURE		UN N	ING	5 N	AFTER AGING	LENGTH	WIDTH		WEIGHT	24 HH WI
• • • • •		ပ Deg D	L	4	1	ء			שאאעט			
		а. DT		ż			NONF	0.084	0 135		0 841	0 722
		29					VELLOW/OFF WHITE	-0.460				2.041
-†		34	- (*				NONF	FAILED	Ľ	L	u.	FAILED
			ריין ריי וויי				ANON	FAILED	FAILED		FAILED	FAILED
2 ABS		BE					NONE	0.087	0.274			0.494
1) -		c		NONE	2.626	2.470			3.641
+		RT B	· c		0		NONE	0.171	0.537	3.462	1.236	1.044
1		5		.	0		NONE	0.399	0.941	0.373	2.207	1.980
+	Encivolity	3 T	4 0				NONE	0.108	0.272			0.522
+							NONE	3.094	2.978			5.422
		3 T				0	CLEAR/CLOUDY	-0.754	2.267			18.217
1			4 -				CI EAR/CLOUDY	-1.123	3.338		20.607	13.685
			- 0			4	NONE	-1.442	3.091			17.905
+	FIED FOLTFRENTLENE OXIDE		4 -				NONF	-1741	0.536			16.640
1		36					NONF	0 127	0 412		1.117	0.956
1								9133	0.538			3252
1		3 2	4				NONE	0 114	0 937			0.626
-	POLYARYL SULFONE	Ē					TANIMETALLIC TAN	10010	0.802			4183
9 POLY	POLYARYL SULFONE	8		2				0000	400.0			
10 POLY	POLYETHYLENE TEREPHTHALATE	F	0					0.000				
10 POLY	POLYETHYLENE TEREPHTHALATE	60	8		0		LI.IAN/WHILE EDGES	CC2.0	1.203			001.7
11 POLY	POLYPHENYLENESULFIDE	RT	0		0		NONE	0.000	0.134			0.104
1	POLYPHENYLENESULFIDE	99	1	0	0	0	CHOCOLATE/LIGHTER	0.057	0000	1		0.237
1	POI VTETRAFLUOROETHYLENE	RT	0		0		NONE	1.667	-0.185			2.180
10 POL V	POI VTETRAFI UOROETHYLENE	8	0		0	0	NONE	1.621	1.219			2.355
+	POI VAMDE -IMIDE	RT	0	0	0	0	NONE	0.099	0.002			1.036
+		Q Q	-		0	0	NONE	0.002	0.267	0.000	0.594	0.630
+		RT R	c	C			NCNE	0.071	0.403	-0.388	0.885	0.810
+		9					NONE	0.014	-0.267	0.385	0.589	0.586
+		3 Ta			C		NONE	0.086	1.477	3.888	6.674	5.202
-		8			0		BROWN/METALLIC GOLD	0.612	0.799	1.163	6.207	5.056
+		BT B	G		0		1	-0.011	1.072	2.028	7.070	5.248
		90					BROWN/METALLIC GOLD	0.008	0.748	2.327	6.092	4.684
+	POLIVARYI FTHERKETONE	BT	0		0		NONE	0.001	0.001	-2.267	0.158	0.128
+		09	0		0	0	NONE	0.027	0.946			0.281
+	POI VBUTYLENE TEREPHTHALATE	RT	0		0		NONE	0.849	1.220	-0.732		6.132
	POLYBUTYLENE TEREPHTHALATE	60	-	0	0		NONE	2.880	2.965	5.829	12.664	9.822
+	POLYMINE - DF	RT	0	0	0	0	NONE	0.523	0.745	0.481	4.895	3.658
+		8	-	0	0	0	NONE	0.450	0.445	-5.788	3.278	2.714
+		RT	0		0	0	INONE	0.147	0.000		1.004	0.839
+		60	-		0	0	IJONE	0.059	0.303	1	0.292	0.321
+	POLY(ARY FTHERFTHERKETONE)	RT	0	0	0	0	HONE	0.043	0.406			0.141
+		60	0	0	0	 	NONE	0.029	0.135			0.364
+-		RT	0	0		*	NONE	-0.028	0.269	2.332	0.299	0.047
+-	LIQUID CRYSTAL POLYMER	8	-	0	0	0	NONE	0.028	000.0	1.186		0.057
+-	RENVION POLYAMIDE	RT	0	0	0		NONE	0.159	0.543	-0.388		1 338
+-	ER NVI ON POI VAMIDE	60	0	0	0	د	NONE	0.634	1.083	0.787	3.502	3.369
-	CON,1 OC1041104											
		Note:										

Note: a. Temperature conversions: 60 deg.C = 140 deg.F, RT = ambient b. Qualitative scale: 0=no change, 1=slight, 2=large, 3=dissolved, deformed or methed c. % Change = change in before/after measurements of plastics i - a

CHANGES IN PLASTICS IMMERSED IN HFC-32 (R-3 TABLE C-2
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TVPE	TEN GR-IFAF	FARTIC-	CRACK-	CRAZ-	SOFTEN	 COLOR CHANGE 	R	R INCUAR			
		ULATES	5NI	ING	5Ni	AFTER AGING	LENGTH	WIDTH	THICKNESS	WEIGHT	24 HH. WI.
							CHANGE	CHANGE	CHANGE	CHANGE	CHANGE
	α	q	å	à	ŕ		Ċ	Ċ	IJ	v	ij
	a Ta	c				0 NONE	0.035	0.405	0.794	0.283	0.288
POLYPHIHALAMIDE						YFLL ON	0.422	0.548	4.694	2.208	1.074
POLYPHIHALAMIUE	84					Ľ	11.655	50.535	181.722	18.400	8.141
ABS	2	5	2			+	FAILED	FAILED	FAILED	FAILED	FAILED
ABS	86	0	n c				1 544	1.646	1.587	3.864	2.154
ACETAL	Ē	5 -					1 325	1.505	2.362	3.951	1.735
ACETAL	8	-					0.028	-0.267	-0.775	0.265	0.223
PHENOLIC	F	-	2				-0.057	-0134	-0.758	0.353	0.275
PHENOLIC	8	0	0				0.001	2 578	1 200	5 945	3,433
POLWINYLIDENE FLUORIDE	RT	•	0				10.7	5.070	2004.1	0.550	4118
POLYVINYLIDENE FLUORIDE	8	•	0					300 0	LAC A	10135	7 643
POLYCARBONATE	RT	-	0				1 784	2.000	13 588	8 007	7 498
POLYCARBONATE		-	0					344 0	3 510	7 501	5078
MODIFIED POLYPHENYLENE OXIDE		0	0		0		1/0.1	241.2	0.00	TAR 7	5.0.0
MODIFIED POLYPHENYLENE OXIDE	60	2	0				1/0.1-	1./40		100.1	995 1
POI YPROPYLENE		0	0				699 .0	1/2.0		TRA-	010
POI VPROPYI ENE	8	0	0	U		0 LUCITE/WHITE CENTER	0.395	0.6/5	0./8/	106.2	1.212
	RT	0	0	0	0		0.329	0.399	2.353	3.856	CP6.2
	60	-	0			0 NONE	0.593	1.337	3.504	5.301	4.3/1
POLIMITE COLI CITE	RT	0	0			0 NONE	0.043	0.402	1.978	1.810	1.450
POLICINICUL ICIC INCOMENTING		0	0			0 TAN/OFF WHITE	0.028	0.401	2.734	3.965	3.424
	R	0	0			0 NONE	0.014	0.535	0.018	0.319	0.241
POLITICALINI ENERGI I FIDE	60		0		0	0 CHOCOLATE/LIGHTER	-0.085	-0.134	1.154	0.438	0.390
	RT	0	0			0 NONE	0.622	0.413	3.051	1.451	0.771
	99	0	0		0	0 NONE	0.723	0.725	0.362	1.636	0.735
	RT		0			0 NONE	0.014	-0.267	1.550	0.285	0.290
	60	ō	0				0.083	-0.133	0.382	0.509	0.456
	BT	c	0		0	0 NONE	-0.029	0.000	0.787	0.289	0.265
	8	0	0		0	0 NONE	0.043	-0.134	1.151	0.558	0.528
	RT	0	0		0	0 NONE	0.100	0.667	-1.113	2.442	1.890
	90	0	0		0	0 NONE	0.271	0.534	1.163	4.039	3.447
	RT	0	0		0	0 NONE	0.170	0.803	1.259	2.758	2.095
		c	0		0		0.334	0.534	2.503	4.417	3.747
MUUIFIEU FULTEI TENIMIUL	BT	0	0		0		0.294	0.541	0.391	0.410	0.315
	90	0	0		0	0 NONE	-0.144	0.270	0.791	1.213	1.055
POLIANILE ITENKLI UNE		0	0		0	1 NONE	0.302	0.947	2.353	2.206	1.795
POLYBUITLENE TEREPUTHALATE		ē	0		0	1 NONE	1.122	0.672	3.113	2.545	3.877
	RT	0	0		0	0 NONE	0.537	0.892	1.942	5.553	4.069
	90	0	0		0	0 NONE	1.364	1.488	1.442		4.619
	RT	0	0		0	0 NONE	0.088	000.0	1.475		0.738
	E0	0	0		0	0 NONE	0.280	0.453	0.966	1.467	1.334
	BT	0	0		0	0 NONE	-0.071	0.404	0.018	0.473	0.382
POLY ANTLE MENE MENE MENU	E.	c	0		0	0 NONE	0.143	0.270	0.784	1.515	1.328
FULT (ANTLE I NENE I NEWE I UNL)	34	c	C		0	0 NONE	-0.014	0.134	-0.379	0.062	0.050
	50	c	C			0 NONE	-0.042	-0.402	1.572	0.098	0.079
CENTRIAL FULTMEN	BT	- 1	0		0	0 NONE	1.484	0.136	0.794	0.193	0.204
60 NTLON, FOL TAMIDE	9	·c	ò		-	0 NONE	0.288	0.405	1.163	1.479	1.410

Note: a. Temperature conversions: 60 deg.C = 140 deg.F, RT = ambient b. Qualitative scale: 0=no change, 1=slight, 2=large, 3=dissolved, deformed or melted c. % Change = change in before/after measurements of plastics

CHANGES IN PLASTICS IMMERSED IN HCFC-123 (R-123) TABLE C-3

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11

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PUNIHILAMIDE Curue Lender MUTE MUDIE Curue Control Contro Cont	NO TYPE	TEMPER-	PARTIC-	CRACK-	CRAZ-	SOFTEN-	COLOR CHANGE	AVERAGE%		AVERAGE%		
Des C FUNHTHUMDE Des C FUND Des C FUND <thdes c<br="">FUND</thdes>		ATURE	ULATES	UNG.	DNI	5NG	AFTER AGING	LENGTH	WIDTH	THICKNESS		24 HR WT
POLYMPHTALANDE A D <thd< th=""> D D <</thd<>		Deg. C						CHANGE	CHANGE	CHANGE	CHANGE	CHANGE
POLYPHTHALANDE M 0		8	ف	ف	ف	ف		ડં	IJ	v		ن ن
PONFINITIAMIDE R 0					0		NONE	-0.029	0.813	-1.556		-0.061
ACTIVITATION RT 3 3 NONE FALED FALE	+	2	C				NONE	-0.053	0.678	-1.917		2.045
Name None None <th< td=""><td>1</td><td>RT</td><td></td><td></td><td></td><td></td><td>NONE</td><td>FAILED</td><td>FAILED</td><td>FAILED</td><td></td><td>FAILED</td></th<>	1	RT					NONE	FAILED	FAILED	FAILED		FAILED
ACETAL R O <td>1</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td>NONE</td> <td>FAILED</td> <td>FAILED</td> <td>FAILED</td> <td></td> <td>FAILED</td>	1	2					NONE	FAILED	FAILED	FAILED		FAILED
ACCTINATION MODE ODD ODD <t< td=""><td>1</td><td>34</td><td></td><td></td><td></td><td></td><td>NONE</td><td>0.160</td><td>-0.137</td><td>-1.181</td><td>0.649</td><td>0.502</td></t<>	1	34					NONE	0.160	-0.137	-1.181	0.649	0.502
AFENDL PRENDL PRENDL POLYMINUER/E FLUORIDE POLYMINUER/E FLUORIDE FOLL M <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>NONE</td><td>3.194</td><td>3.151</td><td>0.787</td><td>9.294</td><td>6.617</td></t<>							NONE	3.194	3.151	0.787	9.294	6.617
Frence: Frence: For Name 0 <td>1</td> <td>314</td> <td></td> <td></td> <td></td> <td></td> <td>NONE</td> <td>0.329</td> <td></td> <td>0.000</td> <td></td> <td>6.266</td>	1	314					NONE	0.329		0.000		6.266
Prevnoue Prime O DONE FALED F	1						NON	0.028		600.0-		0.716
POLYNINUERINE LUORIDE POL POLVER POL POLVER POLVER <t< td=""><td></td><td>8 2</td><td></td><td></td><td></td><td></td><td>NONE</td><td>0.116</td><td></td><td>0.797</td><td></td><td>-0.167</td></t<>		8 2					NONE	0.116		0.797		-0.167
POLYMANDENER PR POLYMANDENER FALED		Ŧ					NONE	0 873		-036		1.421
POLYCARRBONATE MODIFED POLYPIENNENE POLYCARRBONATE MODIFED POLYPIENNENE PAILED FAILED		8					NONE	FAILED		FAILED		FAILED
POLYCAMBOLYPIERMENE CADE MO FALED FALED<		1H										
MODIFIED FOLVPHENNLENE ONDE MT 3 3 NONE FALLED FA	t						NONE					
NONEE NONE FILT FILE	t						NONE	FAILEU	FAILEU			
POLYPROPYLEIE FIN ON DIVENOPYLEIE FIN ON DIVENOPYLEIE FIN ON DIVENOPYLEIE FIN ON DIVENOPYLEIE DIVENOPYLEIE <t< td=""><td>t</td><td></td><td></td><td></td><td>~</td><td></td><td>NONE</td><td>FAILED</td><td>FAILED</td><td>FAILED</td><td>-</td><td>LAILEU</td></t<>	t				~		NONE	FAILED	FAILED	FAILED	-	LAILEU
POLYMPROVTENE 60 0 <th0< th=""> 0 0 <</th0<>	t				0		NONE	1.166		1.569		52/2
FOLVERNEL RT 0	T	2					NONE	1.770		-0.391	14.309	8.038
POLVENNEE POLVENNEE 0 0 1 NONE 0.001 0.143 0.143 POLVENNEE 0 0 0 1 NUNHITE EDGES 0.014 1.748 0.731 POLVENNEE 0 0 0 0 0 1.1 NUNHITE EDGES 0.014 1.748 0.743 POLVENNEE 0 0 0 0 0 0 1.748 0.743 0.746 POLVENNEENE 0 0 0 0 0 0 0 0.14 0.746 0.746 0.746 POLVENEENUE 0 0 0 0 0 0 0.14 0.746 <td></td> <td>34</td> <td></td> <td></td> <td></td> <td></td> <td>NONE</td> <td>0.100</td> <td></td> <td>-0.775</td> <td></td> <td>-0.247</td>		34					NONE	0.100		-0.775		-0.247
POLYETINULATE POL FANWHITE EGGES 0 (0) 1 (14) 1 (30)	1						NONE	0.114		-1.163		0.572
POLYERMULAR NO NONE 0001 1745 0791 POLYERMULAR NO 0	1	3 6					IT TANWHITE FOGES	0 014		1.563		-0.463
POLYTERNUTIKE RIP O	-	Ē					. 1	0.000		0.781		3.773
POLIVENERNICENESULFIDE RT 0	-	8				-				0 784		600.0
POLYPHENTLUNCENE No. POLYAMOE POLYAMOE POLYAMOE No. POLYAMOE PO		RT								457 0-		
POLYTETRA-LUOROETHYLENE RT 0 <td></td> <td>8</td> <td></td> <td></td> <td></td> <td>-+</td> <td></td> <td></td> <td>•</td> <td>S</td> <td></td> <td>2.078</td>		8				-+			•	S		2.078
POLYTETRAFUOROETHYTENE 600 0 000 0.016 0.016 0.016 0.016 0.016 0.016 0.016 0.016 0.016 0.016 0.016 0.017 0.011 0.017 0.011 0.017 0.011 0.0117 0.011 0.017 0.011 0.017 0.011 0.0117 0.011 0.0117 0.011 0.0111 0.0111 0.0111 0.0111 0.0111 0.0111 0.01	T	RT					NON		÷			4 063
POLYAMDE - IMIDE RT 0 0 0 0 0 0 0 0 0 1 138 POLYAMDE - IMIDE RT 0	\uparrow	8					NON			8		
POLYAMDE - IMIDE 60 0	+	RT			0		NON	-0014				
POLYAMDE MI 0	+	8			0		NONE	-0.591	0 809			0.00
POLYAMDE - IMIDE 00 0	+	RT			0		NONE	-0.028	-0.208	2.713		0.04/
POLYETHERIMIDE RT 0	-	2			0		NONE	0.000	-0.402	-1.533		0.465
FOLTEITHETIMIDE MONE 0071 0.003 -0.388 FOLTEITHETIMIDE RT 0 </td <td>1</td> <td>3 4</td> <td></td> <td></td> <td></td> <td></td> <td>NONE</td> <td>-0.071</td> <td>0.001</td> <td>-0.773</td> <td>'</td> <td>-0.118</td>	1	3 4					NONE	-0.071	0.001	-0.773	'	-0.118
POLYETHENIMULE RT 0	T						NONE	0.071	0.003	-0.368	0.752	0.575
MODIFIED POLYEL THERMIDE NO OCOR O	-	8					NONE	-0.028	0.161	-0.465	-0.150	-0.118
MODIFIED FOLVERTIFICATIONE R 0 </td <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>NONE</td> <td>0.040</td> <td>0.912</td> <td>-0.780</td> <td></td> <td>0.549</td>	-						NONE	0.040	0.912	-0.780		0.549
POLVANTELITIENTECTONE NO 0.775 0.775 0.775 POLVANTELITIENTECTONE 60 0	-	36					NONE	0.043	-0.136	-0.781	-0.086	-0.049
POLYBUTICENE TERPENTHALATE RT 0 0 0 NONE 0.014 0.136 1.163 POLYBUTICENE TERPENTHALATE RT 0 0 0 0 0 0 0 1.163 1.163 1.163 1.165 POLYBUTICENE TERPENTHALATE RT 0 0 0 0 0 0.014 0.136 1.163 1.165 POLYBUTICENE TERPENTHALATE RT 0 0 0 0 0 0.014 0.136 1.163 1.165 POLYBUTICENE TERPENTHALATE RT 0 0 0 0 0 0 0.036 1.163 1.165 0.136 1.165 0.096 0 0 0 0 0 0 0.096 0 <	+						NONE	1.204	0.813	0.775		0.060
POLYBUTTLENE TEREPTITIALATE 00 0 0 0 0 0 0 1145	1						NONE	0.014		1.163		1.237
POLYNDITYLENE EMETTIMATE M 0 0 0 NONE -0.116 -0.298 -1.906 - POLYNDIF-DF M M 0 <t< td=""><td>+</td><td></td><td></td><td></td><td></td><td></td><td>NONE</td><td>0.863</td><td></td><td>1.145</td><td>7.023</td><td>6.281</td></t<>	+						NONE	0.863		1.145	7.023	6.281
POLYMIDE - DF 000 0 0 0 0 0.102 -0.149 -0.922 -0.922 -0.922 -0.922 -0.926 - - -0.926 - - -0.926 - - -0.926 - - -0.926 - - - -0.926 - - -0.926 - - -0.926 - - - -0.926 - - - - - - - - - - - - - - - -	+	319					NONE	-0.116	-0.298	-1.909		-0.091
FOLTIMIDE - DF ICOL 0.015 0.000 -0.966 - POLYMIDE - DF ISO 60 0 0 0 0 0 0.015 0.000 -0.966 - POLYMIDE - DF ISO 60 0 0 0 0 0.014 -0.302 -1 905 POLYMIDE - DF 80 0 0 0 0 0 0.014 -0.302 -1 905 POLYMARTETHERKETONE RT 0 0 0 0 0 0.014 -0.302 -1 905 POLYMARTETHERKETONE RT 0 0 0 0 0 0.014 -0.302 -1 563 -1 563 -1 563 -1 563 -1 563 -1 563 -1 563 -1 563 -1 563 -1 563 -1 563 -1 563 -1 563 -1 563 -1 563 -1 <td>+</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td>NONE</td> <td>0.102</td> <td>-0.149</td> <td>-0.952</td> <td></td> <td>0.608</td>	+	2					NONE	0.102	-0.149	-0.952		0.608
POLYMIDE-DF-ISO 00 0 0 0 0 0 0 1 905 -1 905 -1 905 -1 905 -1 905 -1 905 -1 905 -1 905 -1 905 -1 905 -1 905 -1 905 -1 543 -1 544 -1	+	310					NONE	0.015		-0.966		-0.125
POL YIMIDE - UF - ISO 0 0 0 0 0 0 -0.057 0.000 -1.563 POL Y(ARYLETHERETHERKETONE) RT 0 0 0 0 0 0 -0.057 0.000 -1.563 1.543 POLY(ARYLETHERETHERKETONE) RT 0 0 0 0 0.014 -0.134 -1.544 LIQUID CRYSTAL POLYMER RT 0 0 0 0 0.014 -0.134 -0.388 LIQUID CRYSTAL POLYMER 60 0 0 0 0 0.014 -0.028 -0.134 -0.388 LIQUID CRYSTAL POLYMER 60 0 0 0 0 0.014 -0.028 -0.134 -0.388 LIQUID CRYSTAL POLYMER RT 0 0 0 0 0.014 -0.058 -0.781 -0.781 -0.781 RT 0.01D CRYSTAL POLYMER RT 0 0 0 0 0.014 -0.669 -0.781 -0.781 -0.	-						NONE	0.074		-1 905		0.265
POLY(ARTLETITEME I TENNETONE) N1 0 0 0 0 0 1544 -1.544 POLY(ARTLETITEME TONE) 60 0 0 0 0 14 -0.134 -1.544 LIQUID CRYSTAL POLYMER RT 0 0 0 0 0 -0.028 -0.134 -0.388 LIQUID CRYSTAL POLYMER 60 0 0 0 0 -0.014 -0.669 -0.781 LIQUID CRYSTAL POLYMER 60 0 0 0 0 -0.014 -0.669 -0.781 LIQUID CRYSTAL POLYMER RT 0 0 0 0 -0.014 -0.669 -0.781 MAILON, POLYAMIDE RT 0 0 0 0 0.542 -1.829 -1.829 MAILON, POLYAMIDE 60 0 0 0 0.462 1.085 -1.803	-	3					NONE	-0.057	000 ⁰ 0			-0.050
POLYMATLETIMENT INTUCTIONE/ 0<	1						NONE	0.014	-0.134	-1.544	0.020	0.023
LIGUID CRYSTAL FOLTMER D1 0	-	3					NONE	-0.028	-0.134	-0.388	0.005	0.003
LIQUID CHYSIAL POLYMEN W V	1						NONE	-0.014	-0.669	-0.781	0.048	0.051
66 NYLON, POLYAMIDE n1 0 0 0 0 0.462 1.065 -1.503 66 NYLON, POLYAMIDE 60 0 0 0 0.462 1.065 -1.503	-†	20					NONE	-0.058	0.542	-1.829	1	-0.190
66 NYLON, POLYAMIDE 60 VI VI VI VI VI VI VI	-						HNON	0.462		-1.903	2.305	2.216
		8					1.004					

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Note: a. Temperature conversions: 60 deg.C = 140 deg.F, RT = ambient b. Qualitative scale: 0≖no change, 1=slight, 2=large, 3=dissolved, deformed or melted c. % Change = change in before/after measurements of plastics

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	HANGES IN PLASTICS IMMERSED IN HCFC-124 (R-124)

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CHANGES IN	N PLASTICS IMMERSED IN HCFC-124 (R-12) TARF C-4	
	ANGES IN PLASTICS	
	CHI	

NO	TEMPER- ATURE Deg. C.	PARTIC- ULATES	CRACK- ING	CRAZ- ING	SOFTEN-	COLOR CHANGE	LENGTH WIDTH LENGTH WIDTH CHANGE CHANGE	WIDTH	THICKNESS	WEIGHT	24 HP WT CHANGE
	đ	ف	م	٩	م			0.00	C.	1 001	1 580
POLYPHTHALAMIDE	RT	0	0	0	0	NON	0.008	0.612	0.040	0 178	100.0
POI VPHTHAI AMIDE	8	0	0	0	0	NONE	940. D-	040.0			
ABC	RT	e	3	e	e	CREME/WHITE	FAILED	FAILED	LAILEU	LAIEU	
SOL	8	e	e	9	e	NONE	FAILED	FALED	FALLED	FALED	LALEU
ADO			G	o	0	NONE	0.539	0.962		1.360	0.960
3 ACEIAL					C	NONE	1.896	1.779		4.684	4.535
ACETAL	8					NONE	0 171	0.943	3.587	1.426	1.302
PHENOLIC	F) C				NONE	0.043	0.268	-1.142	0.523	0.465
PHENOLIC	8	5	5			NONE	0.056	-0130	2.013		0.392
POLYVINYLIDENE FLUORIDE	RT	0	0	Þ	2		200.0	1 367	281		3 568
POLYVINYLIDENE FLUORIDE	80	0	0	0	0	NUNE	1.404	100.1	100.2	0.700	0.677
POLYCARBONATE	RT	0	0	0	0		*10.0-		230.6	K RA7	5 550
POI VCARBONATE	8	0	0	0	0	CLEAN/CLOUDY	00.0	1.004		0000	0.614
MONITED POLYPHENYI FAF OXIDE		0	0	0	0	NONE	0.014	0.0/3		CR0'0	
MOULED FOLIT TENTELE OXID		C	0	0	0	GRAY/WHITE STREAKS	0.014	1.072	3.125		085.0
MULTED FOLIT ILEIT LAND	24	C	0	o	0	NONE	0.545	1.360	2.778		1.296
POLYPHOPYLENE				c	C	LUCITE/CLOUDY	1.446	0.841	2.756		6.363
POLYPROPYLENE	3 6			C	C	NONE	0.142	- 0.804	2.375		0.720
POLYARYL SULFONE				c	c	NONE	0.057	0.134	-2.281	0.240	-0.043
POLYARYL SULFONE	8				c	IT TANWHITE EDGES	-0.043		1.984	0.675	0.616
10 POLYETHYLENE TEHEPHIHALAIE	Ē					TANA IGHTER FDGES	-0.014	0.134	-0.368	1.013	0.983
10 POLYETHYLENE TEREPHIMALAIE	81					NON	-0.057	0.265	0.794	0.124	0.234
11 POLYPHENYLENESULFIDE	F	0				NON	-0.014	0.134	-2.643	1.265	0.046
11 POLYPHENYLENESULFIDE	8	5				NONE	1 522	2.491	2.267	4.432	3.176
	x	5				NON	1.743	1.942		5.469	3.715
12 POLYTETRAFLUOROETHYLENE	8	2		5 c		NONE	0.178	0.942		1.172	1.112
13 POLYAMIDE-IMIDE	Ŧ	0				NONE	000 0	-0.133	-1.504	-0.130	-0.123
13 POLYAMIDE - IMIDE	8	0				NONE	0000	0 537	0.394	0.841	0.852
14 POLYAMIDE - IMIDE	R		2	5		NONE	0000	0000	-0.382	0.003	0.026
14 POLYAMIDE - IMIDE	8	0				NONE	0.242	0.671	-1.527	0.584	0.561
15 POLYETHERIMIDE	H					LINCIN	0.043	0000			0.127
15 POLYETHERIMIDE	8	0		2		NONE	0 200	0.645			0.532
16 MODIFIED POLYETHERIMIDE		0				NON	-0.062	0.322			0.038
16 MODIFIED POLYETHERIMIDE	8	D				NOAF	1 637	0 272		0.313	0.334
17 POLYARYLETHERKETONE	H	0				- NON	0.078	0.136		-0.046	-0.053
17 POLYARYLETHERKETONE	8	0				NONE	0.043	0.544	1.178	2.162	2.198
18 POLYBUTYLENE TEREPHTHALATE	H	0				NONE	0 130	0.405	1.935		1.885
18 POLYBUTYLENE TEREPHTHALATE	8					NONE	0.160	0000			1.238
19 POLYIMIDE-DF	Ŧ	20				NONE	0.029	00000	-4.571	0.213	0.116
19 POLYIMIDE-DF	8	o (NONE	0.044	0.152		0.704	0.742
20 POLYIMIDE - DF - ISO	F		0			NOME	0000	0.151	-4.080	0.020	-0.024
20 POLYIMIDE - DF - ISO	ଛ	0	0	2		NONE	0.086	0 813		0.238	0.279
21 POLY(ARYLETHERETHERKETONE)	F:		5	2		NONE	-0.014	000 0		0.059	0.045
21 POLY(ARYLETHERETHERKETONE)	8	0	0	D I			1000	0 404		0.050	0.163
1	RT	0	0	0	D			880.0	1		0.072
\top	99	0	0	0	0		0.020	1 250			2 679
+	RT	0	0	0	Ð	NON		507 U			0.280
-		< 	<	C	C			104.0		2.50	51.0

Note: a. Temperature conversions: 60 deg.C = 140 deg.F, RT = ambient b. Qualitative scale: 0=no change, 1=slight. 2=large, 3=dissolved, deformed or metted c. % Change = change in before/after measurements of plastics

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AMERSED IN HFC-125 (R-125) BLE C-5
THANGES IN PLASTICS IM

Bea C Curvate	NO	1	PARTIC-	CRACK -	CRAZ-	SOFTEN-	COLOR CHANGE AFTER AGING	LENGTH	WIDTH	THICKNESS	<	
					5	2		CHANGE	CHANGE	CHANGE	CHANGE	CHANGE
PAYNER/MAUNE PM				4	1	2		U	U	Ű	U	Ů
OAL METHALAMIDE N OCREANDE N OCREANDE N OCREANDE N O ORME O 101 O 1010 O 101 <tho 101<="" th=""> <tho< td=""><td></td><td></td><td>ł</td><td></td><td>-</td><td>5</td><td>NONF</td><td>0.167</td><td>0.269</td><td>-0.769</td><td>0</td><td>0.537</td></tho<></tho>			ł		-	5	NONF	0.167	0.269	-0.769	0	0.537
POLYMINALANDE MO MONE D D D D D D D D D D <	POLYPHTHALAMIDE	Ē					CREAM/OFF WHITE	-0.250	1 082	0.781		1.057
ABS ACCTA ACCTA </td <td>POLYPHTHALAMIDE</td> <td>8</td> <td>o</td> <td>>]'</td> <td></td> <td>- </td> <td>NONE</td> <td>1200</td> <td>-0133</td> <td>-0.368</td> <td>0 659</td> <td>0.360</td>	POLYPHTHALAMIDE	8	o	>]'		- 	NONE	1200	-0133	-0.368	0 659	0.360
ALSL ALSL MORE Constrained Constraine Constrained <td>ABS</td> <td>LH I</td> <td>0</td> <td></td> <td></td> <td></td> <td>NONE</td> <td></td> <td>007 0</td> <td>1 550</td> <td>1 300</td> <td>1.115</td>	ABS	LH I	0				NONE		007 0	1 550	1 300	1.115
ACETAL RT O ONCE OCC OCC <thocc< th=""> <thocc< th=""></thocc<></thocc<>	ABS	8	0	0						200 0	1 145	0 648
	ACETAL	RT	0	0								222 1
Prefeno. Production Productio	ACETAL	8	•	0			NONE	120.0	770.0			A RA
Price Distribution Distribution <thdistribution< th=""> Distribution</thdistribution<>	DUCINO IC	RT	0	0			NONE	0.171	0000.0	000 / -		6.0
FitzWINDERF LUORIDE MONE 0 70%		8	e	C	-		NONE	0.228	0.538	0.760	-	1.4.1
FOLVIMINICIER ORDE ORDE <thorde< th=""> ORDE ORDE</thorde<>	PRENULU	34	c	0			NONE	0.094	-0.270	-1.53		0.242
TUCONDE NONE O 00E O 00E <t< td=""><td></td><td></td><td></td><td>C</td><td></td><td></td><td>NONE</td><td>0 707</td><td>0.949</td><td>0.403</td><td></td><td>1.639</td></t<>				C			NONE	0 707	0.949	0.403		1.639
EFMILENCOND MONE 0 NONE 0	POLYNNYLIDENE FLUUNIUE	84					NONE	-0.682	-0.926	-1.116		0.220
R 0	POLYCARBONATE	2					NONE	0 023	0.266	-0 385		0.47
R NONE O (34) O (36) O (36) <tho (36)<="" th=""> <tho (36)<="" th=""> <tho (36)<="" th=""></tho></tho></tho>	POLYCARBONATE		0				SNON	0.215	-0268	0.003		0.132
RT 0	MODIFIED POLYPHENYLENE OXIDE						NONE	0.043	0.134	0.000		0.366
Mit O O UCUTFCLOUDY 0 566 0 272 0 361 2 Mit O O O UCUTFCLOUDY 0 566 0 273 0 361 0 Mit O <	MODIFIED POLYPHENYLENE OXIDE						NONF	0.218	-0.267	-2.256		0.361
RT 0	POLYPROPYLENE	H	0					0 595	0.272	0.391		2.223
R1 0	POLYPROPYLENE	8	0	•					-0133	105.0	-	0.21
80 0	POLYARYL SULFONE	R1	0	0					0000	0 301		-0.005
RT 0	POLYARM SULFONE	8	0	0					10.067	-1157		0.301
Ri 0	POLYETHYLENE TEREPHTHALATE	Rt	0	0					134	0000		0.878
R1 0	POLYETHYLENE TEREPHTHALATE	8	0	0					200	-0.751		
Rit 0	POLYPHENYLENESULFIDE	RT	0	0			NUNE	ACC'I		AGE O		
RT 0	POLYPHENYLENESULFIDE	8	0	0			NONE	0.042	007.0			2 AAK
RT 0	POLYTETRAFLUOROETHMENE	RT	0	0			NONE	200.1			272	0 760
RT 0 0 0 0 0000 0 112 0 125 0 172 0 172 0 172 0 172 0 172 1	POLYTETRAFLUOROETHYLENE	8	0	0	-		NONE	120.2				1 256
60 0 0 0 000 011 0 033 0 772 1 0 0 725 1 0 725 1 0	POI VAMDE - IMIDE	RT	0	0			NONE	0.023				100
RT 0	POI VAMDE - IMIDE	8	0	0			NONE	10.0-	626.0	000		
etc 0 0 0 0 000L 0.0200 0.000L 0.0200 0.000L 0.000L <th0.00< th=""> <th0.00< th=""> <th0.00< th=""></th0.00<></th0.00<></th0.00<>	POLYAMDE - IMIDE	RT	0	0			NONE		3000			0.070
RT 0	POLYAMDE -IMIDE	8	0	0			NONE	0.024		000		0 681
HERIMIDE RT 00 0 00 0 0 000 0	POLYETHERIMIDE	RT	0	0			NONE		0402	- 2 202		0.613
HERIMIDE RT 0 0 0 NONE 0 </td <td>POLYETHERIMIDE</td> <td>8</td> <td>0</td> <td>0</td> <td></td> <td></td> <td>NUNE</td> <td>3</td> <td>2010</td> <td></td> <td></td> <td>0 642</td>	POLYETHERIMIDE	8	0	0			NUNE	3	2010			0 642
60 0	MODIFIED POLYETHERIMIDE	RT	0	0			NONE	0.10/	2000-	0.000	0.735	909 0
RT 0 0 0 0 0000 0.055 0.000 0.055 0.000 0.055 0.000 0.055 0.000 0.055 0.000 0.055 0.000 0.055 0.000 0.055 0.000 0.055 0.000	MODIFIED POLYETHERIMIDE	8	0	0			NONE	10.0	200.0			
60 0	POLYARYLETHERKETONE	RT	0	0			NONE	-0.255	0000	102 -		
RT 0	POI VARM ETHERKETONE	8	0	0			NONE	000.0				
60 0	POLYBUTYLENE TEREPHTHALATE		0	0			NONE	0.110	0/0/0	10000		
RT 0 0 0 0 0.305 1.013 - 3.201 0 RT 0 0 0 0 0.305 0.413 - 3.201 0 RT 0 0 0 0 0 0.305 0.413 - 3.570 1 RT 0 0 0 0 0 0 0.305 0.485 0 - 3.570 1 - 3.570 - 1 - 3.570 - 3.570 - 3.570 - 2.571 - 0.364 - 0.364 - 0.364 - 0.364 - 0.156 - 0.364 - 0.766	POI VRUTYLENE TEREPHTHALATE		0	0			NONE	0.1.0				
60 0 0 00NE 0.205 0.455 0.455 0.05 RT 0 0 0 0 0 0.205 -1.180 -0.455 0 HEAKETONE) RT 0 0 0 0 0 0.205 -1.180 -1.180 -1.781 0 HEAKETONE) RT 0 0 0 0 0 0.394 0 -1.181 -1.1131 -0 YMER RT 0 0 0 0 0 0.134 -1.1131 -0 YMER RT 0 0 0 0 0 0.134 -1.1131 -0 YMER 60 0 0 0 0 0.000 -0.134 -0.136 0 YMER 60 0 0 0 0 0.000 -0.134 -0.136 0 YMER 61 0 0 0 0 0.055 0.055	POLYMIDE - DF		0	0			NONE	0.305	210.1	1070-	1 403	1 157
RT 0 0 0 0 000 0.206 -1.100 -1.400 -0.400	POI VINDE - DF	8	0	0			NONE	COC D				
HEAKETONE RT 0 0 00NE 0.250 0.000 </td <td>POI MMIDE - DF - ISO</td> <td>RT</td> <td>0</td> <td>0</td> <td></td> <td></td> <td>NONE</td> <td>0.206</td> <td>8</td> <td></td> <td></td> <td></td>	POI MMIDE - DF - ISO	RT	0	0			NONE	0.206	8			
HEAKETONE) RT 0 0 0 NONE 0.035 0.036 0.000 1 YMER 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 </td <td>POLYMIDE -DE -ISO</td> <td>8</td> <td>0</td> <td>0</td> <td></td> <td></td> <td>NONE</td> <td>0.250</td> <td>000.0</td> <td></td> <td></td> <td></td>	POLYMIDE -DE -ISO	8	0	0			NONE	0.250	000.0			
60 0 0 0 0 0 11311 1131 1131	POI VIARY ETHERETHERKETONE	RT	0	0			NONE	000	0.130	190.0		
RT C 0	POLIVIES ETHERETHERKETONE	8	0	0			NONE	-0.129	461.0	101.11		
60 0 0 0 0 0 0.057 0.402 -0.368 0 81 0 0 0 0 0 0 0.056 0.407 0.391 1 81 0 0 0 0 0 0 0.056 0.407 0.391 1 81 0 0 0 0 0 0.056 0.407 0.391 1	TULIONICEINENEINENEINEL	34	0	0			NONE	000 0	-0.134	-0.769	0.068	0.042
RT 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0				C				0.057	0.402	890.0-	 -+	
		3 4						0.056	0.407	0.391	-	
	66 NYLON, POLYAMIUE						NONE	0.259	0.680	000.0	-	1.132

Note: a. Temperature conversions: 60 deg.C = 140 deg.F, RT = ambient b. Quaitative scale: 0=no change, 1=slight, 2=large, 3=dissolved, deformed or melled c. % Change = change in before/after measurements of plastics

CHANGES IN PLASTICS IMMERSED IN HFC-134 (R-134) TABLE C-0
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	Q	TYPE	TEMPER -	PARTIC-	CRACK -	CRAZ-	SOFTEN-	COLOR CHANGE	AVERAGE%	AVERAGE%		AVERAGE%	AVERAGE%
			ATURE	ULATES	5 N	5NI	5 NG	AFTER AGING	LENGIA	CHANGE	THICKNESS		CHANGE
CAL CAL <th></th> <th></th> <th></th> <th>1</th> <th>Ľ</th> <th>1</th> <th><u>ء</u></th> <th></th> <th></th> <th>100</th> <th>5</th> <th></th> <th>U U</th>				1	Ľ	1	<u>ء</u>			100	5		U U
CVANTIMIZATION COM COME COME CALED FALED				2		2	2	NONE	0	0	-0.769	-	1.490
Contraction Filt FALED	-		2					NONE	-0202		-0.778	0.024	090.0
Max Mode	-		3 4		E			NONE	FAILED		FAILED	FAILED	FAILED
	N	A03	2	-			-	NONE	FAILED		FAILED	FAILED	FAILED
ACC ACC <th></th> <td>ADO</td> <td>34</td> <td>-</td> <td></td> <td>0</td> <td></td> <td>NONE</td> <td>1.764</td> <td>1.646</td> <td>0.394</td> <td></td> <td>2.355</td>		ADO	34	-		0		NONE	1.764	1.646	0.394		2.355
Metric Model Model <t< td=""><th>0</th><td>ACEIAL</td><td></td><td></td><td></td><td></td><td></td><td>NONE</td><td>2.071</td><td>2.329</td><td>0.406</td><td></td><td>4.731</td></t<>	0	ACEIAL						NONE	2.071	2.329	0.406		4.731
Predictor NOME OTIN NOME OTIN Origination		ACEIAL	8 4					NONE	0.242	0.808	-1.530		1.371
Provincio Distriction Distriction <thdistriction< th=""> <thdistriction< th=""> <</thdistriction<></thdistriction<>	•	PHENOLIC						NONE	-0.114	0000	00000		-0.305
POLYMINUER MODE 2140 1777 POLYMINUER MODE 0 0 000E 2140 1410 420 POLYMINUER MODE 0	4	PHENOLIC	8 2					NONE	0 100		-1184		0.568
POLYENNELIER Night MONTERP POLYENELIER Night MONTERP POLYEN Night MONTERP POLYEN <t< td=""><th>2</th><td>POLYVINYLIDENE FLUORIDE</td><td>Ē</td><td></td><td></td><td></td><td></td><td>NONE</td><td>245 0</td><td></td><td>1 481</td><td>2777</td><td>6.206</td></t<>	2	POLYVINYLIDENE FLUORIDE	Ē					NONE	245 0		1 481	2777	6.206
POLVCARBOMNE MODIFED FOLVFHENKENE OND MODIFED FO	2	POLYVINYLIDENE FLUORIDE	8		0				C#1.2		100 F		2010
POLYERNEL POL CLANCLOUV -0.02 0 0 CLANCLOUV -0.02 0	•	POLYCARBONATE	RT		0	0			# IO.0	04.0			
MODIFEID FOLVEHENCIER OXIDE FIT OVIDE OTIZ O 208 O 208 <tho 208<="" th=""> O 208 <tho 208<="" th=""></tho></tho>	0	POLYCARBONATE			0	•	+	CLEAR/CLOUDY	-0.025		011.4		
uotometor uotometor <thuto< th=""> uotometor uotom</thuto<>	r	MODIFIED POLYPHENYLENE OXIDE		0	0	0		NONE	0.172		0.781	190.0	1905 D
ROLYPROFYLENE COLYPTON LENE RI 0 0 ULCIFFICUOLY TONNE 0001 0010 0111 0010 0111 0010 0111 0010 0111 0010 0111 0010 0111 0010 0111 0010 0111 0010 0111 0010 0111 0010 0111 0010 0111 0010 0010 0111 0010 0010 0111 00100	-	MODIFIED POLYPHENYLENE OXIDE			0	0		NONE	0.029				1.766
FOLYMENG Line 00 0 0 UUTERCLOUCY 0.000	•				0	0		NONE	0.091	-0.269			0.335
FOLVERING LEVENE FIT DO DOLE DOLE DOLE DOLE C 2000 D 117 FOLVERITG LEVENE FIT DO DOLE DOLE DOLE DOLE C 2000 D 117 FOLVERITG LEREPHTHAL/TE FIT DO DOLE DOLE DOLE D 0000 D 0140 D 0000 D 0140 D 0000 D 2431 D 117 D 0000 D 2431 D 117 D 0000 D 2431 D 116 D 0000 D 0140 D 0140 <thd 0140<="" th=""> D 0140 D 014</thd>	•		8		0		: : :	LUCITE/CLOUDY	0.605	0.543	-3.031		2.739
POLIVERT DONE 0 0 0 1TANNHTEEDES 0	0		34					NONE	0.199	0.402	-2256	1.117	0.729
POLYNTIKENE TEREPHTHALATE N 0 1 <tanwhite edges<="" th=""> 0.006 0.73 -3.360 1.301 POLYNTIKENE TEREPHTHALATE N 0 0 1<tanwhite edges<="" td=""> 0.000 0.432 0.362 0.936 1.301 POLYNTIKENE TEREPHTHALATE N 0 0 0 0 0 0 0.000</tanwhite></tanwhite>	•	POLYANYL SULFUNE						NONE	0.114	0.000	0.000		0.244
POLYETIMUE POL OL O O ITAWNITE O	•	PULYARYL SULFUNE						I T TANWHITE FUGES	0.090		-3.369		1.071
POLYPHENNLARE POLYPHENNLERG POL ONNE 0.000 0.401 1.822 0.000 POLYPHENNLERG ND 0	2	POLYETHYLENE TEREPHIMALATE						IT TANWHITE EDGES	0.000		0.391		2.170
POLYNERMULENSULFICE NO OVE OA O	2	POLYETHYLENE TEREPHIHALAIE						NONF	0000	0.401	1.932		0.073
POLYNETNEL Rol O </td <th>=</th> <td>POLYPHENYLENESULFIDE</td> <td>r</td> <td></td> <td></td> <td></td> <td></td> <td>NONE</td> <td>0.040</td> <td>0 401</td> <td>-1154</td> <td></td> <td>0.067</td>	=	POLYPHENYLENESULFIDE	r					NONE	0.040	0 401	-1154		0.067
POLYTEIRAR-LUONGETIMT.EVE N POLYTEIRAR-LUONGETIMT.EVE N POLYTEIRAR-LUONGETIMT.EVE N POLYTEIRAR-LUONGETIMT.EVE N POLYTEIRAR-LUONGETIMT.EVE N POLYAMOE 1104 -0.636 -2.779 2.803 POLYAMOE - MIDE NT 0<	=	POLYPHENYLENESULFIDE	86					NONE	0.783		-2.960		1.259
POLYTETRAFTION No	12	POLYTETRAFLUOROEIHYLENE	Ë					NONE	1 104		-2787		2.428
POLYAMDE MIDE	12	POLYTETRAFLUOROETHYLENE	8					NONE	0 152		-2276		0.934
POLYAMIDE - IMIDE RI 0	13							NONE		000 0	-0304	1	0.012
POLVAMDE - MIDE RI 0	13	POLYAMDE - IMIDE	8								1136		0.710
POLYAMDE - MIDE 0	4		RT		0						154		0.117
POLVETHERNINDE RT 0	14		8						0.120				0.480
POLVETHERNIDE 60 0 0 0000 0	15	POLYETHERIMIDE	FR.		0	0			0.1.0	100.0	Lot C		
MODIFIED POLYETHERIMIDE RT 0 0 0 0.014 0.006 0.0178 0.006 0.0178 0.006 0.0178 0.006 0.0178 0.006 0.0178 0.006 0.0178 0.006 0.0178 0.006 0.0178 0.006 0.0178 0.006 0.0178 0.006 0.0158 0.0168 <	15	POLYETHERIMIDE	8		•	0		NONE	540.0-		0.707	0.002	
MODIFIED POLYETHERIMIDE 60 0 0 NONE -0.036 0.037 0.001 0.015 POLYARYLETHERKETONE RI 0 <th>9</th> <td>MODIFIED POLYETHERIMIDE</td> <td>F</td> <td>0</td> <td>0</td> <td>0</td> <td></td> <td>NONE</td> <td>0.114</td> <td></td> <td></td> <td></td> <td></td>	9	MODIFIED POLYETHERIMIDE	F	0	0	0		NONE	0.114				
POLVARYLETHERKETONE RT 0 0 0 0.000 <th0< td=""><th>9</th><td>MODIFIED POLYETHERIMIDE</td><td>8</td><td></td><td>0</td><td>0</td><td></td><td>NONE</td><td>050.0-</td><td></td><td>410.0</td><td></td><td></td></th0<>	9	MODIFIED POLYETHERIMIDE	8		0	0		NONE	050.0-		410.0		
POLVARVLETHERKETONE 60 0 0 NONE -0.044 0.000 -1.024 0.000 -1.024 0.000 -1.024 0.000 -1.024 0.000 -1.024 0.000 -1.024 0.000 -1.024 0.000 -1.024 0.000 -1.024 0.000 -1.024 0.000 -1.024 0.000 -1.024 0.000 -1.024 0.000 -1.024 0.000 -1.024 0.000 -1.024 0.000 0.0	17	POLYARYLETHERKETONE	F		0	0		NONE	0.030	0.613	100.0		0.230
POLYBUTVLENE TEREPHTHALATE RT 0 0 00LE 0.259 0.542 -0.708 0.445 0 0.445 0 0.445 0 0.445 0 0.445 0 0.445 0 0.445 0 0.445 0 0.445 0 0.445 0 0.445 0 <th< td=""><th>17</th><td>POLYARYLETHERKETONE</td><td>8</td><td></td><td>•</td><td>0</td><td></td><td>NONE</td><td>440.0-</td><td></td><td></td><td>1</td><td></td></th<>	17	POLYARYLETHERKETONE	8		•	0		NONE	440.0-			1	
POLYBUTYLENE TEREPHTHALATE 60 0 0 0 UNDE 0 0 000	18	POLYBUTYLENE TEREPHTHALATE			0	0		NONE	RC7.0		80/0-		000.0
POLYMIDE – DF RT 0 0 0 NONE 0.334 0.302 -0.466 0.002 0.006 0.485 0.307 POLYMIDE – DF 60 0	18	POLYBUTYLENE TEREPHTHALATE			0	0		NUNE	800.0		00.0	1010.7	2.1 de
POLYMIDE - DF 60 0 0 0 0.000<	0	POLYIMIDE - DF	RT	0	0	0		NONE	400.0	208.0	000		
FOLYMIDE - DF - ISO RT 0 0 0 0.132 0.132 -1.350 0.004 -0.04 POLYMIDE - DF - ISO 60 0	6	POLYMIDE DF	8		0	0		NONE	0.000	0.000	0.400		0.240
FOLYMIDE - DF - ISO 60 0 0 0 NONE -0.103 0.000 0.000 -0.321 - POLY(ARYLETHERETHERKETONE) RT 0 0 0 0 0 0 0 0 0 000 0.000 -0.321 - 0	20	POLYMIDE - DF - ISO	R1		0	0		NONE	0.132	0.152	-1.890		C2C.0
POLY(ARYLETHERETHERKETONE) RT 0 0 0 NONE -0.057 0.270 -2256 0.242 POLY(ARYLETHERETHERKETONE) 60 0 0 0 0 0 0.242 -0.046 - -0.057 0.270 -2266 0.242 POLY(ARYLETHERETHERKETONE) 60 0 0 0 0 0.057 0.269 1.953 0.020 LIQUID CRYSTAL POLYMER 60 0 0 0 0 0.057 0.269 1.953 0.020 LIQUID CRYSTAL POLYMER 60 0 0 0 0 0.051 0.269 1.163 0.200 LIQUID CRYSTAL POLYMER 60 0 0 0 0 0.014 0.269 1.172 3.408 66 NYLON, POLYAMIDE 80 0 0 0 0 0.461 1.493 1.172 3.408	00	POLYMIDE - DF - ISO	8		0	0		NONE	-0.103	000.0	000.0		CDC: D -
POLY(ARV.ETHERETHERKETONE) 60 0 0 00 0 00 0 001 0.051 0.053 2.362 0.046 - LIQUID CRYSTAL POLYMER RT 0 0 0 0 0 0.057 0.269 1.953 0.020 LIQUID CRYSTAL POLYMER 60 0 0 0 0 0.014 0.269 1.165 0.016 LIQUID CRYSTAL POLYMER 60 0 0 0 0 0.014 0.268 1.165 0.016 LIQUID CRYSTAL POLYMER 60 0 0 0 0 0.014 0.268 1.166 0.016 66 NYLON, POLYAMIDE RT 0 0 0 0 0.461 1.433 1.172 3.408 66 NYLON, POLYAMIDE 80 0 0 0 0 0.029 -0.405 -1.157 0.381	3 5	POI VIARY ETHERETHERKETONE)	RT	0	0	•		NONE	-0.057	0.270	-2256		0.162
LIQUID CRYSTAL POLYMER RT 0	5	POI VIARY ETHERETHERKETONE)	8		0	0		NONE	-0.501	-0.673	2.362	'	160.0-
LIOUID CRYSTAL POLYMER 60 0	: 6	I IOUID CRYSTAL POLYMER	R	0	0	0		NONE	0.057	0.269	1.953	0.020	0.011
66 NYLON. POLYAMIDE RT 0 0 0 0 1.172 3.408 66 NYLON. POLYAMIDE 60 0 0 0 0 0 1.172 3.408 66 NYLON. POLYAMIDE 60 0 0 0 0 0.029 -0.405 -1.157 0.381	18	LIDIIID CRYSTAL POLYMER	8		0	0		NONE	0.014	0.268	-1.166	0.016	0.015
00 01 00 0 0 0 0.029 -0.405 -1.157 0.381 66 NULON, POLYAMIDE 00 0 0 0 0.029 -0.405 -1.157 0.381	18	A NVI ON POI VAMIDE	RT		0	0		NONE	0.461	1.493	1.172	3.408	2.601
	3	A NVI ON POI VAMIDE	09		0	0		NONE	0.029	-0.405	-1.157	0.381	0.459
	3	DO NILUN, L'ULIAMIDE	3										
			- AION							_			

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Note: a. Temperature conversions: 60 deg.C = 140 deg.F, RT = ambient b. Qualitative scale: 0=no change, 1=slight, 2=large, 3=dissolved, deformed or methed c. % Change = chang. in before/after measurements of plastics

Polymetric Indic	ATURE Do C ATURE Do C UNTE DO C ATURE DO C UNTE DO C MAING ATERAING ATERAING POLYPHTHALMIDE FOLYPITHALMIDE ALSTAL POLYPITHALMIDE DO C POLYPITHAL DO C POLYPITHAL POLYPITHAL POLYPITHAL </th <th>TVPF</th> <th>TEMPER -</th> <th>PARTIC-</th> <th>CRACK-</th> <th>CRAZ-</th> <th>SOFTEN-</th> <th>COLOR CHANGE</th> <th>. 0</th> <th>8</th> <th>AVERAGE%</th> <th>AVERACE %</th> <th>24 HR WT</th>	TVPF	TEMPER -	PARTIC-	CRACK-	CRAZ-	SOFTEN-	COLOR CHANGE	. 0	8	AVERAGE%	AVERACE %	24 HR WT
Totymerkunder Folvertrikkunde Totymerkunder Folvertrikkunde Totymerkunder Folvertrikkunde Totymerkunder Folvertrikkunde Totymerkunde Totymerkund Totymerkunde Totyme	Procession Description Description <thdescription< th=""> <thdescription< th=""></thdescription<></thdescription<>		ATURE	ULATES	9NI	ING	9NI	AFTER AGING	CHANGE	CHANGE	CHANGE	CHANGE	CHANGE
PCN:WHMLANDE PI 0 <) 7 7	ء	م	ف	à		IJ	υ	U		
FOLTMENTIALANDE GO O	POLYPHTHALANDE OD OD OD OD ODNE A AIS AIS 0 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>NONE</td> <td>0.129</td> <td>2.902</td> <td>2.950</td> <td>. 363</td> <td>1.100</td>							NONE	0.129	2.902	2.950	. 363	1.100
POLYERTRAAMIDE FM 0	POLYENTIALAMICE FIT 0 0 0 000E 0 000E 0 0 000E 0 0 000E 0							NONE	-0.230	-0.270	0.794	-0.339	-0.30
Alsa Description Description <thdescription< th=""> <thde< td=""><td>ABS MONE MONE</td><td></td><td>8</td><td></td><td></td><td></td><td></td><td>NONE</td><td>0.157</td><td>1.743</td><td>1.569</td><td>1.774</td><td>5</td></thde<></thdescription<>	ABS MONE		8					NONE	0.157	1.743	1.569	1.774	5
ABX ABX <td>AERAL LOCETAL MONE FOLVINIWIDENE FLUGNIDE MONE FOLVINIWIDENE FOLVINITIONE MONE FOLVINITIONE MONE FOLVINITIONE <</td> <td>2 ABS</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>NONE</td> <td>-0.199</td> <td>2.271</td> <td>3.107</td> <td>9.463</td> <td>8.829</td>	AERAL LOCETAL MONE FOLVINIWIDENE FLUGNIDE MONE FOLVINIWIDENE FOLVINITIONE MONE FOLVINITIONE MONE FOLVINITIONE <	2 ABS						NONE	-0.199	2.271	3.107	9.463	8.829
ACETAL RI O </td <td>ACETAL MI O O O NONE PERVOLC MI 0</td> <td> i</td> <td>8</td> <td></td> <td></td> <td></td> <td></td> <td>NONF</td> <td>0.378</td> <td>2.092</td> <td>5.833</td> <td>1.377</td> <td>0.781</td>	ACETAL MI O O O NONE PERVOLC MI 0	 i	8					NONF	0.378	2.092	5.833	1.377	0.781
AGENAL FIERNAL FIERNAL FIERNAL FIERNAL FIERNAL FIERNAL FIERNAL FIERNAL FIERNAL FIERNAL FIERNAL FIERNAL FIERNAL FIERNAL FIERNAL FIERNAL FIERNAL <td>Precrut. RM Col Col</td> <td></td> <td>RI</td> <td>0</td> <td>S</td> <td></td> <td></td> <td>NONF</td> <td>1.441</td> <td>1.366</td> <td>-2.296</td> <td>3.527</td> <td>2.716</td>	Precrut. RM Col		RI	0	S			NONF	1.441	1.366	-2.296	3.527	2.716
Preferotion RI 0 </td <td>PHERIOLIC EN 0 <th< td=""><td>•</td><td>8</td><td></td><td></td><td></td><td></td><td>NONF</td><td>0.441</td><td>0.673</td><td>5.039</td><td>1.893</td><td>1.419</td></th<></td>	PHERIOLIC EN 0 <th< td=""><td>•</td><td>8</td><td></td><td></td><td></td><td></td><td>NONF</td><td>0.441</td><td>0.673</td><td>5.039</td><td>1.893</td><td>1.419</td></th<>	•	8					NONF	0.441	0.673	5.039	1.893	1.419
Pritřikolic POLIVINUCIDENE FLUORIDE POL O	Pri-ficiolic PolityminuloEre Fluorinic PolityminuloEre Fluorinic PolitymenuloEre br>PolitymenuloEre Politymenu	+	R	0				NONF	0 242	0.267	-3.344	0.730	1.339
FOLVIMMUDENE FLUORIDE POLYNENDENE FLUORIDE FOLVIMMULENE br>FOLVIMMULENE FOLVIMULENE FOLVIMULENE FOLVIMMULENE FOLVIMU	POLYNINTUDENE LUORIDE RT 0	† i	8	0				NONE	0.263	0.956	0.806	0.728	0.539
PALTWINTLIER PALTWINTLIER<	POLYNAMULDENE LUONIDE POL	1.	RT	0	0			NONE	002 0	2 301	3200	0.860	0.145
FOLVERNEINCIM RI 0 0 000K 0.00K 0.00K 0.000 0.0	POLIVERIBONATE RT 0	+	8	0	•			NONE	1 226	3.017	3.587	0.554	0.299
PGX/CARBOINTE PGX/CARBOINT PGX	POLYZERABONATE OD OD OD OD NONE AMODIFIED POLYPHENYLENE OXIDE 61 0 <t< td=""><td>+</td><td>R</td><td>0</td><td>•</td><td></td><td></td><td></td><td>0000</td><td>0000</td><td>000.0</td><td>1.409</td><td>1.196</td></t<>	+	R	0	•				0000	0000	000.0	1.409	1.196
WODFEEP OLYPHENNLENE OXIDE RT 0<	MODIFIED FOLYPHENNLENE OXIDE RT 0	+		0	0	0		NONE	0.67	0.404		0.324	0.175
4 MOREE FOLYPRENICHE 000 0 000 0 000 0 000 0 000 0 000 0 000 0 0 000 0	A MODFIED POLYRPITY NEW ON ON ON ON POLYRPOYTENE RT 0	+		•	0	0				0.535		1.208	1.003
POLYPROVLENE RT 0 <	POLYPROPYTENE RT 0 0 0 ULUCITE/LOUDY POLYRROPYTENE RT 0			0	•	0		NONE		0.825		0.530	0.373
POLYMENTLERE POLYMENTLERE POLYMENTLERE POLYMENTLERE FOLYAMT SUFFORE Ref 0 </td <td>POLYPRIOFICIE 00 0 00 0 000E POLYRINT SULFONE 60 0</td> <td></td> <td></td> <td>•</td> <td>0</td> <td>0</td> <td></td> <td>NUNE</td> <td>3</td> <td>1010</td> <td>0 707</td> <td>2 870</td> <td>2.529</td>	POLYPRIOFICIE 00 0 00 0 000E POLYRINT SULFONE 60 0			•	0	0		NUNE	3	1010	0 707	2 870	2.529
POLVARY SULTONE R1 0	POLYARNT SULFONE RT 0 0 0 000E POLYARNT SULFONE RT 0	+	8	0	0	0		LUCITE/CLOUDY	108.0	04.0		0.752	0.479
POLYARTIC SULFORE POLYARTIC SULFORE FOLYARTIC SULFORE FOO O ONE O ONE O	POLVARMI. SULFONE FOLVARMI. SULFONE <	+	RT H	0	0	0		NONE	C04.0			104	10 00-
POLYETHYLENE FREPHTHALATE RT 0 NONE 018 2.339 2.339 2.339 2.339 2.339 2.339 2.339 2.339 2.339 2.339 2.339 2.339 0.000	POLVETMILENE POLVETMI	+	2					NONE	240.0	007.0-			0 245
POLYETERFUNCTION POLYETERFUNCTION<	POLYETHATENE MOL MOLE MOLE MOLE POLYETHATENE FREE R1 0 0 0 NONE POLYETHATENESULFIDE R1 0 0 0 0 NONE POLYETHATENESULFIDE R1 0 0 0 0 NONE POLYETHATUDROETHYLENE R1 0 0 0 0 NONE POLYETHATUDROETHYLENE R1 0 0 0 0 NONE POLYAMOE MIDE 0 0 0 0 0 NONE POLYAMOE MIDE 0 0 0 0 NONE NONE POLYAMOE MIDE 0 0 0 0 NONE NONE POLYAMOE MIDE 0 0 0 NONE NONE NONE POLYAMOE MIDE 0 0 0 NONE NONE POLYAMOE NONE POLYAMOE POLYAMOE POLYAMOE	-						NONE	0.198	2.339			
POLYPHENYLENE NO OOT OOT <t< td=""><td>POLYEHINTENE POLYEHINTENE POLYAMDE POLYAMDE<!--</td--><td>1</td><td></td><td></td><td></td><td></td><td></td><td>NONE</td><td>0.057</td><td>0.00</td><td></td><td></td><td></td></td></t<>	POLYEHINTENE POLYAMDE POLYAMDE </td <td>1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>NONE</td> <td>0.057</td> <td>0.00</td> <td></td> <td></td> <td></td>	1						NONE	0.057	0.00			
POLYTETRAFUNCTION OI OOA OI OOA OIA	POLYPHENNESUCIOE 000 0 000 0 000000000000000000000000000000000000	-†						NONE	0.014	0.405			
POLYPHENNLENE FIX 0	POLYPHENTLENESULFICE MOLE NONE NONE NONE POLYPHENTLENESULFNESUL MO 0 0 0 NONE POLYPHENTLUSTERLUORGETHYLENE MO 0 0 0 NONE POLYAMDE - IMIDE MI 0 0 0 0 NONE POLYAMDE - IMIDE MI 0 0 0 0 NONE POLYAMDE - IMIDE MI 0 0 0 0 NONE POLYAMDE - IMIDE MI 0 0 0 0 NONE POLYAMDE - IMIDE MI 0 0 0 0 NONE POLYAMDE - IMIDE MI 0 0 0 NONE NONE POLYANTETHERINIDE MOTIFIED MO 0 0 NONE NONE POLYANTETHERINIDE MOTIFIED MO 0 0 NONE NONE POLYANTETHERINIDE POLYANTETHERINIDE MO 0 0 NONE	1	80					CHOCOLATE/LIGHTER	0.042				
POLYTIERREUDIORETITICATE Mit 0 0 NONE 1504 1151 1150 0 1151 1150 0 1151 1150 0 1151 1150 0 1151 1150 0 1151 1150 0 1151 1150 0 1151 0 0 0 0 0 0 0 0 0 0 1150 0 1150 0 1150 0 1150 0 1151 0 1150 0 1150 0 1150 0 1150 0 1151 1150 0 1150 0 1150 0 1150 1150 1150 1150 1150 1150 1150 1150 <td>POLYTETRAFUONOCETNICENE MONE NONE NONE NONE POLYTETRAFUONOCETNICENE MO 0</td> <td>-</td> <td>31</td> <td></td> <td></td> <td></td> <td>1</td> <td>NONE</td> <td>1.329</td> <td></td> <td></td> <td></td> <td></td>	POLYTETRAFUONOCETNICENE MONE NONE NONE NONE POLYTETRAFUONOCETNICENE MO 0	-	31				1	NONE	1.329				
POLVTETREPLICIE MOL 0 000 0 000 0	POLYTETRATIONOCTITICAGE RT 0 <td>-†</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>NONE</td> <td>1.504</td> <td>1.151</td> <td></td> <td></td> <td></td>	-†						NONE	1.504	1.151			
POLYAMDE - IMDE OI	POLYAMIDE - IMIDE MOL MOLE MOLE MOLE POLYAMIDE - IMIDE MOL 0<	-	3	;				NONE	0.136	0.943			
POLYAMICE - IMIDE OP O	POLYAMDE - IMIDE RT 00 0							NONE	0.157	0.134			
POLYAMDE - IMIDE POLYAMDE - IMIDE POLYAMDE - IMIDE POL OII14 0.133 -0.396 POLYAMDE - IMIDE RT 0 0 0 0 0 0.384 0.673 0.384 POLYAMDE - IMIDE RT 0 0 0 0 0.142 0.133 2.057 0.384 POLYAMDE - IMIDE RT 0 0 0 0 0.142 0.133 2.070 0.787 0.381 POLYETHERINIDE RT 0 0 0 0 0.142 0.700 0.955 -1.900 0.951 0.381 <	POLYAMDE - IMIDE FOLYAMDE - IMIDE FOL POLYAMDE - IMIDE FOL POLYETHERMIDE FOL POLYETHERETHERMIDE FOL		8					NONE	0.071				
POLYAMIDE NONE 0.534 0.673 0.394 POLYAMIDE 0 0 0 0 0 0 0.787 0.394 0.673 0.787 0.287 0.287 0.287 0.287 0.287 0.287 0.287 0.283 0.701 0.781 0.781 0.781 0.781 0.781 0.781 0.781 0.781 0.781 0.287 0.287 0.287 0.281 0.281 0.781 0.781 0.781 0.781 0.781 0.781 0.781 0.781 0.281 0.281 0.281 0.281 0.281 0.281 0.281 0.281 0.281 0.281 0.281 0.281 0.281 0.281 0.281 0.281 0.281 0.281 0.281 <	POLYAMDE - IMIDE OC O O O O O O O O O O NONE <		Ē				-	NONE	-0.114		1		
POLYETHERIMIDE NO O 142 0 267 0 787 0 787 POLYETHERIMIDE RT 0 </td <td>POLYETHERIMIDE MI O O O O O O NONE NONE</td> <td>14 POLYAMDE-IMIDE</td> <td>8</td> <td></td> <td>- 10.1</td> <td></td> <td></td> <td>NONE</td> <td>0.584</td> <td></td> <td></td> <td></td> <td></td>	POLYETHERIMIDE MI O O O O O O NONE	14 POLYAMDE-IMIDE	8		- 10.1			NONE	0.584				
POLYETHERIMIDE 0	FOLYETHERIMIDE MODIFIED POLYETHERIMIDE MODIFIED NONE		R G					NONE	0.142				
MODIFIED OLVEL Indicated Indid Indid Indid	MODIFIED POLYETHERIMIDE MODIE NONE NONE </td <td></td> <td>8 0</td> <td></td> <td></td> <td></td> <td></td> <td>NONE</td> <td>0.096</td> <td>0.700</td> <td></td> <td></td> <td></td>		8 0					NONE	0.096	0.700			
MODIFIED CLYETHENIMULE OD O	MODIFIED CL_VENTLETIMIDE MOD O <td></td> <td></td> <td>-</td> <td></td> <td></td> <td></td> <td>NONE</td> <td>-0.003</td> <td></td> <td></td> <td></td> <td></td>			-				NONE	-0.003				
POLYARYLETHERKETONE NI O O ONE 0.227 0.925 -1.880 POLYBUTYLENE TEREPHTHALATE RT 0 0 0 0 0 0 0.274 0.407 0.391 POLYBUTYLENE TEREPHTHALATE RT 0 0 0 0 0.407 0.391 POLYBUTYLENE TEREPHTHALATE RT 0 0 0 0 0.435 0.274 0.407 0.391 POLYBUTYLENE TEREPHTHALATE 60 0 0 0 0 0.435 2.479 6.701 POLYMDE - DF RT 0 0 0 0 0.407 0.391 0.495 POLYMDE - DF RT 0 0 0 0 0.401 0.416 0.416 POLYMDE - DF RT 0 0 0 0 0.391 2.477 6.186 POLYMDE - DF RT 0 0 0 0 0.391 2.477 6.186 POLYMNDE - D	POLYARYLETHERKETONE MI O							NONE	0.136				
POLYBUTYLETHERKETONE 00 0	POLYBUTYLENE TEREPHTHALATE WI O<	17 POLYARYLETHERKETONE						NONE	0.227		'		
POLYBUTYLENE FREEPHHALATE N1 0 0 0 0 0 1563 0 1563 0 1563 0 1563 0 1563 0 1563 0 1563 0 1563 0 1563 0 1563 0 1563 0 1563 0 1563 0 1563 0 1563 0 1563 0	POLYBUTYLENE EREPHIHALATE NI O O O O O NONE						-	NONE	0.274				
POLYBUTYLENE TEREPHIHALATE 00 0 0 0 0 0 0.524 2.439 6.701 POLYBUTYLENE TEREPHIHALATE RT 0 0 0 0 0 0.524 2.439 6.701 POLYMIDE – DF RT 0 0 0 0 0.131 0.149 -0.971 POLYMIDE – DF 0 0 0 0 0 0.339 2.477 6.186 POLYMIDE – DF 0 0 0 0 0 0.339 2.477 6.186 POLYMIDE – DF RT 0 0 0 0 0.339 2.477 6.186 POLYMIDE – DF – ISO 60 0 0 0 0 0.485 7.056 POLYMIDE – DF – ISO 61 0 0 0 0 0.066 0 0.067 1.485 POLYMENE RT 0 0 0 0 0.067 1.587 1.587 POLYARYLETHERETHERKETO	POLYBUTYLENE TEREPHIHALAILE Work Work Work MONE POLYBUTYLENE TEREPHIHALAILE Work MONE POL POLYMIDE - DF NONE POLYMADE POLYMADE RT 0 0 0 0 NONE POLYMADE POLYMADE POLYMADE RT 0 0 0 0 0 NONE POLYMADE NONE POLYMADE NONE POLYMADE NONE						-	NONE	0.245				
POLYMIDE - DF N1 0 0 0 0 0 0 0 0 131 0 149 -0.971 0 0 0 0 0 0 0 0 131 0 149 -0.971 6.165 -0.971 6.165 -0.971 6.165 -0.971 6.165 -0.971 6.165 -0.916 -0.916	POLYMIDE - DF NI O							NONE	0.524				
POLYMIDE - DF 60 0	POLYMIDE - DF 60 0							NONE	0.131	0.149	1		
POLYMIDE - DF -ISO R1 0	POLYMIDE - DF -ISO R1 0		00					NONE	0.339				
POLYMIDE - DF - ISO 60 0 0 0 0 0 0 0 0 0 1 0 1 1 48 7 056 0	POLYMIDE - DF -ISO 60 0		Ŧ					NONE	0.088	1			
POLY(ARYLETHERETHERETHERETONE) R1 0 0 0 0.186 0.000 1.148 POLY(ARYLETHERETHERETONE) 60 0 0 0 0 1.567 1.567 POLY(ARYLETHERETHERETHERETONE) 60 0 0 0 0.675 1.567 LIQUID CRYSTAL POLYMER RT 0 0 0 0.671 -0.535 -2.317 LIQUID CRYSTAL POLYMER RT 0 0 0 0.071 -0.535 -2.317 LIQUID CRYSTAL POLYMER 60 0 0 0 0.71 -0.535 -2.317 66 NYLON, POLYAMIDE RT 0 0 0 0.561 3.166 3.560	POLY(ARYLETHERETHERKETONE) R1 0 0 0 0 0 0 001E	+						HNON	0.244				
POLY(ARYLETHERETHERKETONE) 60 0 0 0 0.642 0.675 1.567 LIQUID CRYSTAL POLYMER RT 0 0 0 0 0.71 -0.535 -2.317 LIQUID CRYSTAL POLYMER 60 0 0 0 0.71 -0.535 -2.317 LIQUID CRYSTAL POLYMER 60 0 0 0 0.71 -0.535 -2.317 66 NYLON, POLYAMIDE RT 0 0 0 0.561 3.186 3.590	POLY(ARYLETHERETHERKETONE) 60 0<	+						NONF	0.186				0.232
LIQUID CRYSTAL POLYMER RT 0 0 0 0.071 -0.535 -2.317 LIQUID CRYSTAL POLYMER 60 0 0 0 0 0.561 3.560 LIQUID CRYSTAL POLYMER 60 0 0 0 0.561 3.186 3.560 66 NYLON, POLYAMIDE RT 0 0 0 0.561 0.271 -1.133	LIQUID CRYSTAL POLYMER RT 0	1						NONF	0.042				0.026
LIQUID CRYSTAL POLYMER 50 0 0 0 0 0 2591 3.186 3.690 2 66 NYLON, POLYAMIDE RT 0 0 0 0 0.101 0.271 -1.133 0	LIQUID CRYSTAL POLYMER 60 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1	H					NONE	0.071	1			0
66 NYLON, POLYAMIDE 0.101 0.271 -1.133 0	66 NYLON, POLYAMIDE 60 0 0 0 0 0 0 0 0		8					NONE	0.591			2	N I
	66 NYLON, POLYAMIDE		r					NONE	0.101	0.271	-1.133	•	0.57

CHANGES IN PLASTICS IMMERSED IN HFC-134a (R-134a) TABLE C-7

C-7

a. Temperature conversions: 60 deg.C = 140 deg.F. RT = ambient
 b. Qualificative scale: 0 = no change, 1 = slight, 2 = large, 3 = dissolved, deformed or method c. % Change = change in before/after measurements of plastics

Note

CHANGES IN PLASTICS IMMERSED IN HCFC-142b (R-142b) TABLE C-8	
CHANGES IN	

-

			- 47427					MICTU	TUCKNESS	WEIGHT	24 HR WT
	ATURE	ULATES	9 N	ING	5 <u>N</u>	DVIDA HJI JA	CHANGE	CHANGE	CHANGE		CHANGE
		L	1	2	<u>ء</u>		0	0	U U	Ű	Ů
	8	ġ	ġ		2	NONF	000 0	0.271		0.225	0.192
POLYPHTHALAMIDE	H					NONF	-0.426			-0.019	-0.001
POLYPHTHALAMIDE	8					CREAN/DEF WHITE	0000	2 410		13.249	10.998
	Ē					NONE	-5126			29.868	26.306
2 ABS	8	N				NONE				0.474	0.363
-	R	0				NONE	1 311	1 651		2.668	2.360
3 ACETAL	8	•				NONE	410	0 137			0.247
4 PHENOLIC	RT	-	0					0.00			0.284
1	8	0	0			NONE	0.043	0/2.0			
1	RT	0	0		0	NONE	-0.058	-0.270	1	0.40	0.0
1	8	0	0		0	NONE	1.663			3.5%	101.0
1	TR BT	0	0		0	NONE	0000	'			0.715
1	2	0	0		0	NONE	0.128	2.136			5276
1						NONE	000.0				1.914
1)				NONE	-0.400	2.544		-	15.859
-					0	NONE	0.924		-0.388		3.050
8 POLYPROPYLENE	Ē					NONF	1 990			8.829	5.103
8 POLYPROPYLENE	8					NONE				0.063	0.149
9 POLYARYL SULFONE	R	•	0				acoo		ļ		
1		0	0								0 269
t		0	0		0	NONE					0 722
+		-	0					•			
+	R	•	0			SOM	3	5			
T	8	0	0		0	NON			-		
+	R R	•	•		•	NON					
+	8	0	•		•	NONE			; ; ;		
+-	RT	•	•		0	NON					1000
1	8	0	•		0	NON	0000	•	1	' 	
+	R	0	0		0	NONE	0000		•		
	2		0		0	NONE	0.043				
-	34		0		0	NONE	0.000				0.147
+			C		0	NONE	0.014			'	0.025
-+	31				0	NONE	0.000				0.124
-†			C		0	NONE	0.003				0.039
	3 4					NONE	0.029				
1	2		0		0	NONE	0.014			-0.073	
17 POLYARYLE I RENEI UNE			0		0	NONE	0.014		'	0.252	
+		G	0		0	NONE	0.144	0.677			
-			0		0	NONE	0.000				
-+						NONE	0.015			0.023	0.351
-	86					NONE	-0.015	0.152	-5.951	0.160	0.160
-						NONE	0.044	000.0		1	'
						NONE	-0.029	-0.135	-0.778		
						NONE	0.043	-0.269	-2.632	-0.003	0.002
_						NONF	000 0	0.403	-1.544	0.142	0.145
22 LIQUID CRYSTAL POLYMER	R					NONE	8000			-0.006	800.0-
	8	0				NONE	0.072				
23 66 NYLON, POLYAMIDE	R	0	•								
t	2	<u> </u>	•		0	NONE	80.0-	13.0			

Note: a. Temperature conversions: 60 deg.C = 140 deg.F. RT = ambient b. Qualitative scale: 0=no change, 1=slight 2=large, 3=dissolved, deformed or melted c. % Change = change in before/after measurements of plastics

TYPE	TEMPER -	PARTIC-	CRACK-	CRAZ-	SOFTEN-	COLOR CHANGE	ж		AVERACES	AVEHAGE%	
	ATURE	ULATES	NG	ING	9 N	AFTER AGING	CHANGE	CHANGE	CHANGE	CHANGE	CHANGE
	רפס. רפס.	2	1	£	£		ú	Ű	v	ij	IJ
	9 1 1					NONE	10.094	0.134	3.175	1.761	1.393
						YELLOW/OFF WHITE	-0.229	0.000	0.394	1.498	1.487
	S T		c			NONE	0.085	0.402	0.775	0.750	0.461
ADS	C.				0	CREAM/OFF WHITE	0.256	0.266	1.944	2.940	2.684
ADS	3 4					NONE	-0.215	0.137	1.997	0.690	0.428
AUEIAL	2		0	0	0	NONE	1.125	0.548	0.787	1.815	1.487
	3 4					NONE	0.142	0.268	1.128	1.264	1.075
PHENOLIC						NONE	0.085	0.000	0.388	0.288	0.282
	8 4					NONF	0.203	0.136	000.0	0.378	0.324
POLYVINYLIDENE FLUORIDE	Ē					NONF	1 584	1.355	1.190	3.180	2.96
POLYVINYLIDENE FLUORIDE	8					NONF	0.014	0.268	1.932	0.395	0.295
POLYCARBONATE	r					NONE	0.128	0.200	1 154	0.968	0.87
POLYCARBONATE							0.140	0.541	0020-	0.371	0.268
MODIFIED POLYPHENYLENE OXIDE								0.40	1 545	1 1 60	1 031
MODIFIED POLYPHENYLENE OXIDE			0				0 367	0 137	2 344	0.800	0.67
POLYPROPYLENE	R	0	Þ				10000 10000	0191	282.01	2 835	0.51
POLYPROPYLENE	8	0	0				8010	20.01	-3 600	0.857	0.706
POLYARYL SULFONE	R	0	0		_			2010		0.700	0.62
POLYARYL SULFONE	ତ	0	0					10.50	0.000	0.325	0.241
POLYETHYLENE TEREPHTHALATE	R	0			-		0.040	507.0	0.780	0.037	0.88
POLYETHYLENE TEREPHTHALATE	ତି	0							0.010	0.081	0.083
POLYPHENYLENESULFIDE	RT	0	0				0.020		1111	8 412	0.218
POLYPHENYLENESULFIDE	8	0	0		0	- 1	4 0.0	0.000	CNCN	0.453	100
POLYTETRAFLUOROETHYLENE	RT	0	0				874.	1.010	2071	0.000	1 654
POLYTETRAFLUOROETHYLENE	8	0	0				200.1		101.2		20.0
POLYAMDE-IMIDE	ВT	0	0	0		NONE	0.140	0.002	50 4 .0		10.57
POLYAMDE - IMIDE	8	0	0	0		NONE	0.121			84C 0	
POLYAMDE - IMIDE	ВT	0	0		0	NONE	0.014	200.0	0.172	00/.0	
POLYAMDE-IMIDE	8	0	0	0		NONE	001.0	0000	0/0.0-		0.000
POLYETHERIMIDE	RT	0	0			NONE	170.0		0000	844 V	0.433
POLYETHERIMIDE	8	0	0			NONE	1/0.0	1070-	0.000		0.450
MODIFIED POLYETHERIMIDE	RT	0	0							0.067	40.0
MODIFIED POLYETHERIMIDE	8	0	0			NONE	0110		1 100	0.200	0.220
POLYARYLETHERKETONE	H)				0147	000 0	-0.716	0 456	0 41
POLYARYLETHERKETONE	8						0.15	0.406	-0.758	0.285	0.234
POLYBUTYLENE TEREPHTHALATE	Ŧ						0.5.0	0.971	1 018	0.980	0.941
POLYBUTYLENE TEREPHTHALATE	09		S			NONE	0.200	0 447	0.490	1 369	1.021
POLYIMIDE-DF	H		יוכ			NONE	0.200	0 208	-4 545	0.054	0 834
POLYIMIDE - DF	8	0		5			7440	0.455	2000	0.004	0.500
POLYMIDE - DF - ISO	ЯT	0	0			NONE	0.141.0	0.400		0.7.10	200.0
POLYIMIDE - DF - ISO	99	0	0	0		NONE	0.1.0	0.00		0.010	
POLY(ARYLETHERETHERKETONE)	RT	0	0	0	0	NONE	0.172	-0.801	000.1	801.0	
POI Y ARM ETHERETHERKETONE)	00	0	0	0		NONE	0.072	800-0-	0000	0.346	0.0
I IOUID CRYSTAL POLYMER	RT	0	0	0		NONE	-0.071	0.403	0.778	- 1	0.029
LIDUID CRYSTAL POLYMER	60	0	0	0		NONE	0.127	-0.402	0.778	- 16.450	0.07
66 NYI ON POLYAMIDE	RT	0	0	0	0	NONE	0.187	-0.267	-1.100	2.620	2.111
		Approximation of the state of t				NONE	0 404	0 405	10.385	1 015	

CHANGES IN PLASTICS IMMERSED IN HFC-143a (R-143a) TABLE C-9

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Note: a. Temperature conversions: 60 deg.C = 140 deg.F, RT = ambient b. Qualitative scale: 0=no change, 1=slight, 2=large, 3=clissolved, deformed or method c. % Change = change in before/after measurements of plastics

C-9

CHANGES IN PLASTICS IMMERSED IN HFC-152a (R-152a) TABLE C-10

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		NO. TYPE	TEMPER-	PARTIC	CRACK-	CRAZ-	SOFTEN-	COLOR CHANGE	AVERAGE%	AVERAGE%		₹	AVERAGE%
			ATURE	ULATES	DNI	<u>S</u>	IJNG			HIDIM	THICKNESS		24 HH WI
Followith En P			Deg. C.						CHANGE	CHANGE	CHANGE		
POLYMETHALAMIDE End I	Provertimeduality Initial Initial <thinitian< th=""> Initial <thinitian< th=""></thinitian<></thinitian<>		ed	Ġ	م	م	Þ.		ö	v			ני
POLYNHYJJAWICE BO I 0 0 CRAMOF WHITE -0.002 CORR -0.002 CORR -0.002 CORR -0.002 CORR -0.002 CORR -0.002 CORR -0.002 -0.012 -0.002 -0.012	POLYMENTALIAMITE OP 1 0		R			0	0	NON	0.211	-0.775			1.287
Mail Mail <th< td=""><td>Normand Normand <t< td=""><th></th><th>8</th><td></td><td></td><td>0</td><td>0</td><td>CREAM/OFF WHITE</td><td>-0.876</td><td>-0.002</td><td>0000</td><td></td><td>-0.115</td></t<></td></th<>	Normand Normand <t< td=""><th></th><th>8</th><td></td><td></td><td>0</td><td>0</td><td>CREAM/OFF WHITE</td><td>-0.876</td><td>-0.002</td><td>0000</td><td></td><td>-0.115</td></t<>		8			0	0	CREAM/OFF WHITE	-0.876	-0.002	0000		-0.115
Mail Mail <th< td=""><td>Mail Filter Filter<th>1</th><th>RT RT</th><td></td><td>O</td><td>0</td><td>2</td><td>NONE</td><td>-5.140</td><td>0000</td><td></td><td></td><td>14.809</td></td></th<>	Mail Filter Filter <th>1</th> <th>RT RT</th> <td></td> <td>O</td> <td>0</td> <td>2</td> <td>NONE</td> <td>-5.140</td> <td>0000</td> <td></td> <td></td> <td>14.809</td>	1	RT RT		O	0	2	NONE	-5.140	0000			14.809
Constrat Display <	NOME NOME 1.227 1.338 2.388 2.388 CETAL R 2 0<	T				0	0	NONE	FAILED	FAILED	FALED		FALED
Control Filt Control C	Control Display Display <t< td=""><th>+</th><th>La La</th><td></td><td></td><td>0</td><td>0</td><td>NONE</td><td>1.327</td><td>1.235</td><td>2.300</td><td></td><td>2.903</td></t<>	+	La La			0	0	NONE	1.327	1.235	2.300		2.903
MERCIAL MIN D D DOME D </td <td>MERCIC NOME 0.00E <th< td=""><th>╋</th><th></th><td> </td><td></td><td></td><td>0</td><td>NONE</td><td>1.327</td><td>1.094</td><td></td><td></td><td>2.045</td></th<></td>	MERCIC NOME 0.00E 0.00E <th< td=""><th>╋</th><th></th><td> </td><td></td><td></td><td>0</td><td>NONE</td><td>1.327</td><td>1.094</td><td></td><td></td><td>2.045</td></th<>	╋					0	NONE	1.327	1.094			2.045
FRENDOC FOLVINATIONER 0	FFERVICE FERVICE 0	t					0	NONE	0.299				1.510
OTVANDERE LUGRIC R 0 NOME 0.006 0.005 <th0.005< th=""> <th0.005< th=""> <th0.005<< td=""><td>FORVINGENE FT 0 <th< td=""><th>\uparrow</th><th></th><td></td><td></td><td>0</td><td>0</td><td>NONE</td><td>-0.028</td><td></td><td></td><td></td><td>0.109</td></th<></td></th0.005<<></th0.005<></th0.005<>	FORVINGENE FT 0 <th< td=""><th>\uparrow</th><th></th><td></td><td></td><td>0</td><td>0</td><td>NONE</td><td>-0.028</td><td></td><td></td><td></td><td>0.109</td></th<>	\uparrow				0	0	NONE	-0.028				0.109
Privmitticity convention 000 0 000 0 000 0 0 000 <	FAYNINGENE FOOD Image 1 OND 1 OND 1 O 1 CLANTCOMD 0 2	\dagger					0	NONE	0.626				1.614
POXYMENDE T 0 0 0 0.06 <th0.06< th=""> <th0.06< th=""> <th0.06< th=""></th0.06<></th0.06<></th0.06<>	POXYMPGNURE Increments Processor Processor <th>1</th> <th>+</th> <td></td> <td></td> <td></td> <td></td> <td>NONE</td> <td>1 3.81</td> <td></td> <td></td> <td></td> <td>5.325</td>	1	+					NONE	1 3.81				5.325
POLYMENDERIC No 1 CLERFICUOV 0754 0534 7480 6737 POLYMARDMAILE NO POLYMARDMAIL POLYMARDMAIL POLYMARDMAIL POLYMARDMAIL POLYMARDMAIL POLYMARDMAIL POLYMARDMAIL POLYMARD	PONTARIE Display <	+	-					NONE	0.057	0.401			1.799
POLYMARE OND O O OND O </td <td>POLVENDER/EVICE OTO OTO</td> <th>1</th> <th></th> <td></td> <td></td> <td></td> <td>, -</td> <td></td> <td>-0.754</td> <td></td> <td></td> <td></td> <td>5.991</td>	POLVENDER/EVICE OTO	1					, -		-0.754				5.991
MODFEED FOLYNEEWING MO POLYNEEWING MO POLYNEEWING MO POLYNEEWING MO POLYNEEWING MO POLYNEEWING MO POLYNE	MODIFED POLYNHENKE KONG MO D NORE O 2022 2 400 <th2 400<="" th=""> 2 400 <th2 400<="" th=""></th2></th2>						- (NONE	0.067				1 441
MODIFERD MODE Used (13) Concert (13) Concocert (13) <thconcert (13) <</thconcert 	MODIFED Res D D DOL DOLONG D D DOL D						5		107.0				AAC R
POX.PREPARENCE RI O	FOLYPROPYLEIE RI 0					0	0	NON	0.342				34.0
POX.VPR:ONCENT R0 3 0	POLYMONLENE ROWNENE	T				0	0	NON	0.522	V			201-1
POX.WRWT SULFONE RT 0	POX.WAYL District Structure FIT 0 0 000E 0.263 0.012 2.382 POX.WAYL Structure FIT 0 0 0 000E 0.312 2.382 0.312 2.382 0.313 0.312 0.312 0.312 0.312 0.313<	t	8			0	o	NONE	0.693				417.0
POLYMINE UNICE 00 0 000 <th< td=""><td>POLYNYTIKE ODE ODE</td><th>T</th><th>R</th><td></td><td></td><td>0</td><td>0</td><td>NONE</td><td>0.591</td><td></td><td></td><td></td><td>2.562</td></th<>	POLYNYTIKE ODE	T	R			0	0	NONE	0.591				2.562
POLYETING TREEPHTHALTE R 0 0 NOME -0014 0.557 -0.373 0.347 POLYETING TREEPHTHALTE R 0 0 NOME 1.61 0.001 1.61 0.001 1.61 0.001 1.61 0.001 0.001 0.001 1.61 0.0001 0.001 0.0001 <	FOLYETINIE ME TOTAL	T				0	0	NONE	0.028				0.640
POLYETIMIZE POLYETIMIZATIE MOL DOL NONE 0.000 1.561 2.272 POLYETIMIZER FIT 0	POLYPERAFUNANCE NO DOME 0.006 0.660 0.600 <th0.600< th=""> 0.600 <th0.600< th=""></th0.600<></th0.600<>	+					c	NONE	-0.014	0.537			0.579
POLYETIMULE POLYETIMULATIE PUL 0 000E 1.471 0.000 1.471 0.000 1.471 0.000 1.471 0.000 1.471 0.000	POLYTERMULER RT 0 <	-†		_				NONE	0000				2.127
POLYNERMUE POLYNERMUE POL ODD	POLYPTERATUCE NI O OCOLATEALT BROWN NO O OCOLATEALT BROWN O </td <th></th> <th> </th> <td></td> <td></td> <td></td> <td>-</td> <td>NONE</td> <td>1 471</td> <td></td> <td></td> <td></td> <td>0.058</td>						-	NONE	1 471				0.058
POLYTEINALUE RI 0 <	POLYPHENALERE SULF RI 0		r							0.613			0.073
POLVTETRATLOGOCTIMULENE RT 0 <td>POLYTETRAFLUGNGETHYLENE FIT 0<th></th><th>_</th><td></td><td></td><td></td><td>_</td><td></td><td></td><td></td><td></td><td></td><td>0 801</td></td>	POLYTETRAFLUGNGETHYLENE FIT 0 <th></th> <th>_</th> <td></td> <td></td> <td></td> <td>_</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0 801</td>		_				_						0 801
POLYTETRAFLUORGETHYTENE R0 0 0 0 000000	POLYTETRAFLUCHOCETHYTENE 60 1 0 <th>-</th> <th></th> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0.102</td> <td>100.0</td> <td></td> <td></td> <td>1 304</td>	-							0.102	100.0			1 304
POLYAMIDE - IMIDE RT 0	POLYAMIDE RIT 0 <th< td=""><th>-</th><th></th><td></td><td></td><td></td><td>5</td><td></td><td>0.002</td><td></td><td></td><td></td><td>A05 0</td></th<>	-					5		0.002				A05 0
POLYAMIDE - IMIDE E00 1 0	POLYAMIDE - IMIDE RO 1 0		R			0	o I	NON	280.0				0.040
POLYANIDE - IMIDE R1 0	PCIVANIDE RT 0 0 00 </td <th>\vdash</th> <th>8</th> <td></td> <td></td> <td>•</td> <td>0</td> <td>NON</td> <td>0.000</td> <td>200.0-</td> <td></td> <td></td> <td>0.01</td>	\vdash	8			•	0	NON	0.000	200.0-			0.01
POLYAMIDE Initial POLYAMIDE NONE 0.128 0.134 0.008 0.0431 POLYAMIDE RI 0 0 0 0 0 0 0.128 0.134 0.003 0.041 POLYETHERIMIDE RI 0 0 0 0 0 0 0.108 0.134 0.033 0.041 MODFED RI 0 0 0 0 0 0.008 0.134 0.033 0.041 MODFED RI 0 0 0 0 0 0.008 0.136 0.136 0.409 MODFED RI 0 0 0 0 0 0 0.008 0.409 MODFED RI 0 0 0 0 0 0.006 0.409 MODFED RI 0 0 0 0 0.008 0.409 0.409 POLYBITIALITE RI 0 0 0 0 <td< td=""><td>POLYAMIDE - IMIDE 00 0 0 0.00E 0.128 0.134 0.003 POLYAMIDE - IMIDE RI 0 <</td><th>+</th><th>18</th><td></td><td></td><td>0</td><td>0</td><td>NON</td><td>0.611</td><td>0.267</td><td>'</td><td></td><td>NC2.0</td></td<>	POLYAMIDE - IMIDE 00 0 0 0.00E 0.128 0.134 0.003 POLYAMIDE - IMIDE RI 0 <	+	18			0	0	NON	0.611	0.267	'		NC2.0
POLYETHERIMICE RT 0	POLYETHERIMICE RT 0	+	8			0	0	NONE	0.128	0.134			0.001
POLYETHERIMIDE 60 0 0 0 NOME -0.266 2.344 0.409 MODIFED POLYETHERIMIDE RT 0 0 0 0 0 0 0.413 0.433 0.409 MODIFED POLYETHERIMIDE RT 0 0 0 0 0 0.413 0.360 0.543 MODIFED POLYETHERIMIDE RT 0 0 0 0 0 0.413 0.369 0.543 POLYARYLETHERIKTONE RT 0 0 0 0 0 0.417 0.490 0.600 0.751 POLYARYLETHERIKTONE RT 0 0 0 0 0 0.607 0.706 0.751 0.761 0.751 POLYARYLETHERKTONE RT 0 0 0 0 0 0.751 0.762 0.706 0.761 0.761 0.761 0.761 0.761 0.761 0.761 0.761 0.761 0.761 0.761 0.761 0.761	POLYERNIDE 60 0 0 0 NONE -0.028 -0.266 2.344 MODFED POLYETHERIMIDE RT 0 0 0 0 0 0.108 0.133	t	R			0	0	NONE	0.171	1.374	'		1000
MONTENTHERIKTIONE RT 0 0 NOME 0.108 0.413 0.198 0.631 MODIFED POLYETHERIMIDE RT 0 0 0 NOME 0.008 0.331 0.198 0.6518 MODIFED POLYETHERIMIDE RT 0 0 0 NOME 0.008 0.331 0.198 0.6518 POLYARYLETHERKETONE RT 0 0 0 0 NOME 0.008 0.331 0.590 0.578 POLYARYLETHERKETONE RT 0 0 0 0 NOME 0.702 0.000 0.701 POLYBRUE RT 0 0 0 0 0 0 0 0.702 0.000 0.701 POLYBRUTARE RT 0 0 0 0 0 0.702 0.000 0.710 POLYBUTENE RT 0 0 0 0 0 0.720 0.710 POLYBUTENE RT 0 0	MONFED POLYETHERIMIDE RT 0	T	30			0	0	NONE	-0.028	-0.266			0.319
MODIFED POLYETHERIKINE 60 1 0 0 NOME 0.006 0.361 0.839 0.578 POLYARYLETHERKETONE RT 0	MOOFEED POLYETHERIMICE 60 1 0	+				0	0	NONE	0.108				0.651
POLVARVETHERKETONIC RT 0 0 0 NONE -0007 0.000 0.800 -0.643 POLVARVETHERKETONIC RT 0	POLVARVETHERKTONIC RT 0 0 0 NONE -0.007 0.000 0.800 -1.800 POLVARVETHERKTONIC RT 0 0 0 0 0 0 0 0 0.000 0.800 0.147 0.800 0.800 0.800 0.800 0.800 0.800 0.800 0.800 0.800 0.800 0.160 0.800 0.800 0.800 0.800 0.800 0.800 0.800 0.800 0.800 0.800 0.800 0.800 0.800 0.800 0.800 0.9	+				0	0	NONE	0.008				0.472
POLYRIVE 600 0	POLYARVETHERKETONE 600 0 0 0 NONE 0.062 0.000 3.159 - POLYARVETHERKETONE 600 0 0 0 0 0 0 0.062 0.000 3.159 - POLYBUTYLENE TEREPHTHALATE 60 0 0 0 0 0 0.2216 0.135 0.000 3.159 - POLYBUTYLENE TEREPHTHALATE 60 0 0 0 0 0 0.2316 0.135 0.000 3.159 - 0	-+-				0	0	NONE	-0.007	000'0			-0.579
POLYNILTIETERFHITHALTE RT 0 0 0 0 NONE 0.136 0.000 0.701 POLYBUTYENE TERFHITHALTE 60 2 0 <td>POLYBUTYLENE TERPENTIALITE RT 0<</td> <th>+</th> <th></th> <td></td> <td></td> <td>0</td> <td>0</td> <td>NONE</td> <td>0.062</td> <td>0.000</td> <td></td> <td>1</td> <td>-0.076</td>	POLYBUTYLENE TERPENTIALITE RT 0<	+				0	0	NONE	0.062	0.000		1	-0.076
POLYNUTLENE TEREPHTHATE 00 0 0 NONE 0.782 0.609 1.166 3.238 POLYNUTLENE TEREPHTHATE 60 0 0 0 0 0 0 2 0 3	POLYNUTLERE FINEMATE 60 2 0 0 0 NONE 0.792 0.809 1.166 POLYNUTLENE TEREPHTHALATE 60 2 0 0 0 0 0 0 0 0 0 447 2.956 1.166 POLYNMIDE DF 80 0 0 0 0 0 0.421 0.437 2.956 POLYNMIDE DF 00 0 0 0 0 0 0.447 2.956 0.481 POLYNMIDE DF 0 0 0 0 0 0 0.447 2.956 0.481 POLYNMIDE DF 0 0 0 0 0 0 0.011 0.147 0.303 1.960 POLYNMIDE DF ISTRETHERETONE RT 0 0 0 0 0.0147 0.303 1.960 1.961 POLYNMIDE DF ISTRETHERETONE RT 0 0 0 0 0.0147 0.250 0.303 1.960	-				C	0	NONE	0.216				0.508
POLYNMIDE CALENE LTALETITION RT 0 0 0 0 0 0 205 2016 2	POLYNMICE Contraction RT 0	+					0	NONE	0.792				3.107
POLYIMICE - DF 00 0	FOLVIMIDE -DF 60 0	+				0	0	NONE	0.421	0.447	2.956		1.569
FOLVIMING_OF_INDE_OF_ISO RT 0 <td>FOLVIMING_OF_ISO RT 0 0 0 0 0 147 0.303 1.860 POLVIMING_OF_ISO RT 0 0 0 0 0 0 0 0.147 0.303 1.860 POLYIMIDE_OF_ISO RT 0 0 0 0 0 0.135 1.187 POLYIMIDE_OF_ISO RT 0 0 0 0 0 0.043 0.135 1.187 POLYIARYLETHERETHERKETONE) RT 0 0 0 0 0.00K 0.043 0.135 1.187 POLYIARYLETHERETHERKETONE) RT 0 0 0 0 0.00K 0.014 0.135 1.187 LIQUID CRYSTAL POLYMER RT 0 0 0 0 0.014 0.134 0.000 LIQUID CRYSTAL POLYMER RT 0 0 0 0 0.147 0.134 0.000 UOULON POLYAMIDE RT 0 0 0 0</td> <th>+</th> <th></th> <td></td> <td></td> <td>0</td> <td>0</td> <td>NONE</td> <td>0.067</td> <td>0.149</td> <td></td> <td></td> <td>0.700</td>	FOLVIMING_OF_ISO RT 0 0 0 0 0 147 0.303 1.860 POLVIMING_OF_ISO RT 0 0 0 0 0 0 0 0.147 0.303 1.860 POLYIMIDE_OF_ISO RT 0 0 0 0 0 0.135 1.187 POLYIMIDE_OF_ISO RT 0 0 0 0 0 0.043 0.135 1.187 POLYIARYLETHERETHERKETONE) RT 0 0 0 0 0.00K 0.043 0.135 1.187 POLYIARYLETHERETHERKETONE) RT 0 0 0 0 0.00K 0.014 0.135 1.187 LIQUID CRYSTAL POLYMER RT 0 0 0 0 0.014 0.134 0.000 LIQUID CRYSTAL POLYMER RT 0 0 0 0 0.147 0.134 0.000 UOULON POLYAMIDE RT 0 0 0 0	+				0	0	NONE	0.067	0.149			0.700
FOLTIMICE Cold Transmer Cold Transme	FOLTMING_OF_IOU 0000 -0.151 0.500 -0.151 0.500 -0.001 -0.0151 0.500 -0.001 -0.0151 0.500 -0.001 0.500 -0.013 0.1051 0.500 -0.013 0.1051 0.500 -0.014 0.270 1.87 0.000 -0.014 0.270 1.87 0.000 -0.014 0.270 1.87 0.000 -0.014 0.270 1.87 0.000 -0.014 0.270 1.87 -0.011 0.000 -0.014 0.270 1.87 -0.001 -0.0	+				0	0	NONE	0.147	0.303			0.622
FOLTIMILE Currence 0.043 0.135 1.187 0.055 POLV(ARYLETHERKETONE) RT 0 0 0 0 0 0.043 0.135 1.187 0.055 POLV(ARYLETHERKETONE) 60 0 0 0 0 0 0.043 0.270 1.956 0.045 POLV(ARYLETHERKETONE) 60 0 0 0 0 0.045 0.270 1.956 0.045 POLV(ARYLETHERKETONE) 60 0 0 0 0 0.045 0.270 1.956 0.045 LUQUID CRYSTAL POLYMER RT 0 0 0 0 0.014 0.134 0.013 LUQUID CRYSTAL POLYMER RT 0 0 0 0.014 0.134 0.013 LOUDID CRYSTAL POLYMER RT 0 0 0 0.014 0.134 0.013 MOUID CRYSTAL POLYMER RT 0 0 0 0.014 0.134 0.013 <td< td=""><td>FOLTIMILE OCT OCA3 0.135 1.187 POLV(ARYLETHERKETONE) RT 0 0 0 0 0 0 0.435 0.135 1.187 POLV(ARYLETHERETHERKETONE) 60 0 0 0 0 0 0.043 0.135 1.187 POLV(ARYLETHERETHERKETONE) 60 0 0 0 0 0.057 0.270 1.956 POLV(ARYLETHERETHERKETONE) 60 1 0 0 0 0.057 0.269 -3.381 - LUQUID CRYSTAL POLYMER 60 1 0 0 0 0.067 0.269 -3.381 - LUQUID CRYSTAL POLYMER 60 1 0 0 0 0.014 0.134 0.000 MOVID CRYSTAL POLYMER 60 0 0 0 0 0.014 0.134 0.000 MOVID CRYSTAL POLYMER 60 0 0 0 0.014 0.134 0.000 MOVID CRY</td><th>-†</th><th></th><td></td><td></td><td></td><td>0</td><td>NONE</td><td>0000</td><td>-0.151</td><td>0.500</td><td></td><td>-0.228</td></td<>	FOLTIMILE OCT OCA3 0.135 1.187 POLV(ARYLETHERKETONE) RT 0 0 0 0 0 0 0.435 0.135 1.187 POLV(ARYLETHERETHERKETONE) 60 0 0 0 0 0 0.043 0.135 1.187 POLV(ARYLETHERETHERKETONE) 60 0 0 0 0 0.057 0.270 1.956 POLV(ARYLETHERETHERKETONE) 60 1 0 0 0 0.057 0.269 -3.381 - LUQUID CRYSTAL POLYMER 60 1 0 0 0 0.067 0.269 -3.381 - LUQUID CRYSTAL POLYMER 60 1 0 0 0 0.014 0.134 0.000 MOVID CRYSTAL POLYMER 60 0 0 0 0 0.014 0.134 0.000 MOVID CRYSTAL POLYMER 60 0 0 0 0.014 0.134 0.000 MOVID CRY	-†					0	NONE	0000	-0.151	0.500		-0.228
POLY (ATVLET IFERT ENTRETONE) 00 0 <th< td=""><td>POLY (ARYLETHERETHENKETONE) 60 0 0 0 0 0 0 1.956 1.956 1.956 -3.381 - LUQUID CRYSTAL POLYMER RT 0 0 0 0 0 0.057 0.269 -3.381 - LUQUID CRYSTAL POLYMER RT 0 0 0 0 0.014 0.134 0.000 ULUDID CRYSTAL POLYMER 60 1 0 0 0 0.014 0.134 0.000 UNUD CRYSTAL POLYMER 60 0 0 0 0 0.014 0.134 0.000 06 NYLON, POLYAMIDE 60 0 0 0 0 0.006 0.267 2.359 06 NYLON, POLYAMIDE 60 0 0 0 0 0.003 0.270 1.181</td><th>-†</th><th></th><td></td><td></td><td></td><td>0</td><td>NONE</td><td>0.043</td><td>0.135</td><td></td><td></td><td>0.011</td></th<>	POLY (ARYLETHERETHENKETONE) 60 0 0 0 0 0 0 1.956 1.956 1.956 -3.381 - LUQUID CRYSTAL POLYMER RT 0 0 0 0 0 0.057 0.269 -3.381 - LUQUID CRYSTAL POLYMER RT 0 0 0 0 0.014 0.134 0.000 ULUDID CRYSTAL POLYMER 60 1 0 0 0 0.014 0.134 0.000 UNUD CRYSTAL POLYMER 60 0 0 0 0 0.014 0.134 0.000 06 NYLON, POLYAMIDE 60 0 0 0 0 0.006 0.267 2.359 06 NYLON, POLYAMIDE 60 0 0 0 0 0.003 0.270 1.181	-†					0	NONE	0.043	0.135			0.011
POLY(ATVLE ITENE ITENE I ONE) OD O <th< td=""><td>POLY(ATTLE ITENE INFINE) OD O</td><th>-</th><th></th><td></td><td></td><td>0</td><td>0</td><td>NONE</td><td>-0.014</td><td></td><td></td><td></td><td>0.064</td></th<>	POLY(ATTLE ITENE INFINE) OD O	-				0	0	NONE	-0.014				0.064
LUGUID CATSTAL PUTMER 00 0	LUGUID CATSTAL FOLYMER 00 0	+	I CINE)				0	NONE	0.057	0.269		-	-0.047
LUGUID CATSTAL FOLTMEN RT 0 0 0 0 0 0 2.359 66 NYLON, POLYAMIDE 60 0 0 0 0 0 0.270 1.181 66 NYLON, POLYAMIDE 60 0 0 0 0 0.270 1.181	UCUDIO TOTATIONE RT 0 0 0 0 0 0 0 2.359 06 NYLON, POLYAMIDE 60 0 0 0 0 0 0.100 0.270 1.181 06 NYLON, POLYAMIDE 60 0 0 0 0 0.270 1.181						0	NONE	0.014	0.134		0.013	0.025
00 N1LON, POLYAMIDE 00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	000 NTLON, FOLYAMIDE 00 0 0 0 0 0 1.181 00 NYLON, POLYAMIDE 00 0 0 0 0 0 0.270 1.181	+				C	0	NONE	0.100	0.267	2		0.823
		1					c	NONE	-0.043	0.270			0.222
		-	5										

Note: a. Temperature conversions: 60 deg.C = 140 deg.F, RT = ambient b. Qualitative scale: 0= no change, 1=slight, 2=large, 3= dissolved, deformed or melted c. % Change = change in before/after measurements of plastics

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C-10

CREEP OF ENGINEERING PLASTICS IN SYNTHETIC LUBRICANT / REFRIGERANT ENVIRONMENT [14 DAY CREEP AT 20 DEG. C. (68 DEG. F.) IN 32 ISO VG BRANCHED ACID, POLYOL ESTER WITH 40% HCFC-22 (R-22) BY WEIGHT] TABLE D-1

					00 0101	100 01	-111					
					HUFU-ZZ (H-ZZ) equilibrium test pressure =	be (77-4)		st pressure	12 A/ D81			
						Creep	Creep Modulus					time of
ġ	TYPE					time	time (hours)					break
			10	50		100	0	200	0	300	0	or start
		ksi	kg/mm ^ 2	ksi	kg/mm ^ 2	ksi	ka/mm^2	ksi	kg/mm^2	ksi I	kg/mm^2	of yielding
-	POLYPHTHALAMIDE	957.4	673.3	718.0	505.0	675.8	475.3	574.4	404.0	522.2	367.3	
2	ACRYLONITRILE-BUTADIENE-STYRENE TERPOLYMER	1	1	1	1	-		1	1	-	1	broke @ 1 hr
6	ACETAL	487.7	343.0	304.8	214.4	143.4	100.9	42.4	29.8	34.8	24.5	yield @ 150 hr
4	PHENOLIC	3075.6	2160.7	2870.6	2016.7	2691.2	1890.6	2691.2	1890.6	2152.9	1512.5	
S	POLYVINYLIDENE FLUORIDE	617.7	434.2	336.9	236.8	185.3	130.3	148.2	104.2	123.5	86.8	
ω	POLYCARBONATE	2547.1	1790.0	1273.5	895.0	849.0	596.7	509.4	358.0	424.5	298.3	
2	MODIFIED POLYPHENYLENE OXIDE	1	1	-	1	1	1	1	-	-	1	broke @ 1 hr
80	POLYPROPYLENE	359.8	252.7	134.9	94.8	90.0	63.2	54.0	37.9	28.7	20.2	yinald @ 200 hr
σ	POLYARYL SULFONE	4242.7	2983.3	2447.7	1721.2	1591.0	1118.8	1060.7	745.8	795.5	559.4	
10	POLYETHYLENE TEREPHTHALATE	2068.9	1455.0	1724.1	1212.5	1477.8	1039.3	1124.4	790.8	1100.5	773.9	
=	POLYPHENYLENESULFIDE	7087.2	4983.3	5315.4	3737.5	4252.3	2990.0	4252.3	2990.0	4252.3	2990.0	
13	POLYAMIDE-IMIDE	3034.8	2133.7	2792.0	1963.0	2326.7	1635.8	1745.0	1226.9	1396.0	981.5	
14	POLYAMIDE-IMIDE	2873.8	2020.0	2498.9	1756.5	2299.0	1616.0	1642.1	1154.3	1277.2	897.8	
15	POLYETHERIMIDE	4921.9	3459.4	2316.2	1627.9	1575.0	1107.0	1193.2	838.6	960.4	675.0	
16	MODIFEID POLYETHERIMIDE	603.8	424.6	381.3	268.2	326.4	229.5	326.4	229.5	322.0	226.4	
17	POLYARYLETHERKETONE	4670.5	3284.4	3736.4	2627.5	3736.4	2627.5	2335.3	1642.2	2075.8	1459.7	
18	POLYBUTYLENE TEREPHTHALATE	1453.9	1022.0	363.5	255.5	290.8	204.4	207.7	146.0	165.2	116.1	
19	POLYIMIDE-DF	2716.2	1910.0	1086.5	764.0	679.0	477.5	543.2	382.0	452.7	318.3	
20	POLYIMIDE-DF-ISO	3052.2	2145.0	1017.4	715.0	953.8	670.3	872.1	612.9	824.9	579.7	
21	POLY(ARYLETHERETHERKETONE)	2991.6	2104.2	1436.0	1010.0	1196.7	841.7	1025.7	721.4	897.5	631.3	
22	LIQUID CRYSTAL POLYMER	4135.6	2906.3	3308.5	2325.0	2363.2	1660.7	1654.2	1162.5	1203.1	845.5	
23	66 NYLON, POLYAMIDE	491.4	345.5	245.7	172.8	196.6	138.2	169.4	119.1	163.8	115.2	

CREEP OF ENGINEERING PLASTICS IN SYNTHETIC LUBRICANT / REFRIGERANT ENVIRONMENT	114 DAY CREEP AT 20 DEG. C. (68 DEG. F.) IN 32 ISO VG BRANCHED ACID, POLYOL ESTER WITH 40% HFC-1528 (H-1528) BY WEIGHTI	TABLE D-2
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NO. POLYPHTHALAMIDE ACRYLONITRILE-BUTADIENE-STYRENE TERPOLYMER ALEADIC											
					Creep Modulus	lodulus					time of
					time (hours)	10Urs)					break
	10	<u></u>	50		100	0	200	0	ĕ	300	or start of
	ksi Ko	ka/mm^2	ksi k	kg/mm^2	ksi k	kg/mm^2	ksi k	kg/mm^2	ksi k	kg/mm^2	yielding
+++	9	1442.9	2.1	1262.5	1689.5	1188.2	1305.5	918.2	1025.8	721.4	
		1	1		1		1	1	-	1	broke @ 1 hr
T	609.6	428.7	406.4	285.8	270.9	190.5	187.6	131.9	135.5	95.3	
	10764.6	7570.8	7176.4	5047.2	4305.9	3028.3	3588.2	2523.6	2870.6	2018.9	
1	264.7	186.2	154.4	108.6	123.5	86.9	100.2	70.4	82.0	57.9	
1	1273.5	895.7	849.0	597.1	749.1	526.9	636.8	447.8	599.3	421.5	•••••••••••••••••••••••••••••••••••••••
1		1	-	1	1	1	1	1	1	1	broke @ 1 hr
+	269.9	189.8	112.4	79.1	96.4	67.8	84.3	59.3	75.0	52.7	
	3182.1	2237.9	1272.3	895.2	1060.7	746.0	795.5	559.5	757.6	532.8	
	5172.3	3637.7	3694.5	2598.3	3448.2	2425.1	2586.1	1818.8	2068.9	1455.1	
-†	13288.6	9345.8	11812.1	8307.4	11812.1	8307.4	9664.4	6797.0	9491.8	6675.6	
+	2326.7	1636.3	1623.2	1141.6	1485.1	1044.5	1269.1	892.5	1183.0	832.0	
-+	2873.8	2021.1	1553.4	1092.5	1306.3	918.7	1197.4	842.1	1149.5	808.4	
	1575.0	1107.7	1230.5	865.4	1033.8	769.2	1036.2	728.7	984.4	692.3	
	905.7	637.0	584.3	410.9	532.8	374.7	470.5	330.9	431.3	303.3	
	4670.5	3284.8	3113.7	2189.8	2490.9	1751.9	2335.3	1642.4	2197.9	1545.8	
	727.0	511.3	466.0	327.7	370.9	260.8	370.9	260.8	363.5	200.0	
+	452.7	318.4	362.2	254.7	352.7	248.1	352.7	248.1	339.5	238.8	
+	1220.9	858.7	872.1	613.3	847.8	596.3	744.4	523.6	678.3	477.0	
-	5128.5	3606.9	3590.0	2524.8	2991.6	2104.0	2111.7	1485.2	1795.0	1262.4	
-+-	4726.4	3324.0	3676.1	2585.4	3308.5	2326.8	1654.2	11ċ3.4	1323.4	930.7	
	327.6	230.4	213.7	150.3	196.6	138.2	175.5	123.4	49.1	34.6	

CREEP OF ENGINEERING PLASTICS IN SYNTHETIC LUBRICANT / REFRIGERANT ENVIRONMENT [14 DAY CREEP AT 20 DEG. C. (68 DEG. F.) IN 32 ISO VG BRANCHED ACID, POLYOL ESTER WITH 40% HFC-134a (R-134a) BY WEIGHT]	
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TABLE	

					HEC - 134	(B-134a)	adulibrium	a test ores	<u>HEC 134a (R 134a) aquilibrium test pressure = 65 bsi</u>	181		
												time of
						Creep Modulus	lodulus					ic eun
Q	TYPE					time (hours)	(SINOL					break
Ż	J 	ł	0	2	50	F	100		200	300	8	or start of
		, isi	ka/mm^2	ksi	kg/mm ^ 2	ksi.	kg/mm ^ 2	ksi	kg/mm ^ 2	ksi	kg/mm ^ 2	yielding
•		9.5	1188.2	1305.5	918.2	667.9	469.8	522.2	367.3	478.7	336.7	
- c	A COVI CNITTOLIC BI ITADIENE - STVRENE TERPOI YMER		1	1	1	1	1	1	1	1	1	broke @ 1 hr
ve		12192.0	8574.6	1524.0	1071.8	937.8	659.6	530.1	372.8	451.6	317.6	
2	DHENDIIC	5382.3	3785.4	4305.9	3028.3	4305.9	3028.3	3588.2	2523.6	3075.6	2163.1	
r		487.6	342.9	330.9	232.7	285.1	200.5	268.5	188.9	253.8	178.5	
2 4		3183.8	2239.2	2830.1	1990.4	2547.1	1791.4	1698.1	1194.2	1415.0	995.2	
0 r			1	1	1		1	1	1	1	1	broke @ 1 hr
- •		2248 B	1581.5	749.6	527.2	481 9	338.9	329.1	231.4	293.3	206.3	
0		43001	3024.2	2272.9	-	-	895.2		366.9	442.0	310.8	
n		7369.0	5196.7	5747.0	-	4310.2	3031.4	3978.7	2798.2	3232.7	2273.5	
2		6253.4	4398.0	3385.6	2381.1	2920.6	2054.0	2416.1	1699.2	2044.4	1437.8	
-		13959.9	9818.0	4653.3	3272.7	3172.7	2231.4	2684.6	1888.1	2102.4	1478.6	
2	+-	11495.0	8084.4	5225.0	3674.7	3193.1	2245.7	3025.0	2127.5	2498.9	1757.5	
<u>+</u>		7875.0	5538.5	3028.8	2130.2	2460.9	1730.8	1875.0	1318.7	1640.6	1153.9	
<u></u>	-+	7245.5	5095.8	1906.7	1341.0	1575.1	1107.8	1449.1	1019.2	1065.5	749.4	
17	+	7472.8	5255.6	5337.7	3754.0	4670.5	3284.8	4670.5	3284.8	4395.8	3091.5	
	+	793.6	558.1	757.2	532.6	586.3	412.3	562.0	395.2	534.5	375.9	
2 q		3880.2	2729.0	2771.6	1949.3	2716.2	1910.3	1509.0	1061.3	1180.9	830.6	
	+	7630.6	5366.6	3052.2	2146.6	2347.9	1651.3	1907.6	1341.6	1327.1	933.3	
3 5		17949.8	12624.1	17949.8	12624.1	17095.0	12022.9	10558.7	7425.9	8756.0	6158.1	
3	+	8271.1	5817.1	÷135.6	2908.5	3007.7	2115.3	1946.1	1368.7	1654.2	1163.4	
3 8	+	1228.5	864.0	792.6	557.4	491.4	345.6	446.7	314.2	396.3	278.7	

TABLE E-1

				SOFTEN-	COLOR CHANGE	AVERAGE%	AVERACE% AVERACE%	AVERAGE%	AVERAGE%
NO.					AFTER AGING		HLOW	THICKNESS	WEIGHT
					3	CHANGE	CHANGE	CHANGE	CHANGE
	1	2		<u>م</u>		Ċ	v	Ċ	IJ
		s c	s c		GREEN-CREAM/ALMOND	-1.24	-0.13	-0.78	-1.12
	-	2 9			WHI TE/CREAM	-3.88	-3.41	-0.79	-9.57
3 ACETAL		0			NONE	-0.61	-0.54	0.00	-3.29
	50				ILICITE-HAZY/CHOC.	-0.19	0.14	0.79	0.25
POLWINYLIDENE FLUCHIUE					LUCITE-HAZY/WHITE	3.62		4.72	14.73
-	-			0	NONE	0.01	0.13	0.39	0.78
-+				0	NONE	-0.13	-0.13	-1.56	0.67
-				c	NONE	-0.08	0.00	0.39	0.00
- 1			c	0	NONE	0.66	-0.31	2.07	1.46
-+				0	NONE	-0.11	-0.13	0.39	-0.99
				c	NONE	-0.04	-0.13	-0.38	-0.69
-					NONE	-0.01	0.00	0.39	0.71
					NONE	-0.05	0.21	0.63	0.58
-					GRAY-GREENBROWN	-0.06	0.00	0.39	0.17
-+		~ ~		c	NONE	0.12		0.00	2.68
-					NONE	0.10	0.15	-0.48	0.80
-					NONE	-0.06		-0.96	-0.35
-+					NONE	60.0	0.0	0.39	0.72
-					NONE	0.03	0.00	0.00	0.02
-			0	0	CREAM/YELLOW	-0.40	0.00	-0.39	1.54
23 DO NTLON, FULTAMINE	2	2					-		
	Note:								
	a. Aging temperatu		: 100 Deg.C	m = 100 Deg.C (212 Deg.F)					
	b. Qualitative scale:	ve scale: 0=	no change.	1=slight, 2=	0=no change, 1=sight, 2=large, 3=disselved, deformed or melted	ed or melted			
	C. & Chen	ge = chang	a in Defore/a	Iter measure	c. % Change = change in perorevarer measurements of passues		-		

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E-1

NO.	ULATES	CHACK-	NG NG				WIDTH THICKNESS	THICKNESS	WEIGHT
	Ġ	ġ	ف	ف					
1 POI YPHTHALAMIDE	0	0	0	0	GREEN-CREAM/ALMOND	-1.10	-0.54	-0.39	-1.29
3 ACETAL	0	0	0	0	WHITEVELLOW	-0.01	0.14	0.79	0.37
4 PHENOLIC	0	0	0	0	NONE	-0.63	1	00.00	-3.83
\uparrow	0	0	0	-	LUCITE-HAZY/GRAY	1.86		2.78	3.76
\uparrow	0	0	0	0	NONE	0.68	0.81	1.57	2.97
\uparrow	0	0	0	0	NONE	-0.01	0.00	0.78	-0.26
	0	0	0	0	NONE	-0.17	-0.27	0.39	-0.46
+	0	0	0	0	NONE	-0.04	1	0.78	0.09
12 POLYTETRAFLUOROETHYLENE	0	0	0	0	NONE	0.08	0.73	0.38	0.23
+-	0	0	0	0	NONE	-0.11	-0.13	0.00	-1.41
-	0	0	0	0	NONE	-0.11	-0.13	0.77	-0.80
+	0	0	0	0	NONE	-0.17	0.40	0.78	0.51
+	0	0	0	0	NONE	-0.03	0.00	0.63	0.32
+	0	0	0	0	NONE	-0.17	0.14	0.78	-0.09
╈	-	0	0	0	NONE	-0.35		1.18	0.47
+	0	0	0	0	NONE	0.01		0.0	0.03
+	0	0	0	0	NONE	-0.12	-0.30	8.0 0	-0.94
1-	0	0	0	0	NONE	-0.11	0.27	0.79	-0.17
╈	0	с	0	0	NONE	-0.03	-0.13	8.0 0	-0.05
+	-	0	0	0	NONE	-0.66	-0.67	0.00 0	-1.32

PHVSICAL CHANGES IN PLASTICS EXPOSED TO 32 ISO VG BRANCHED ACID POLYOL ESTER AND HFC-32 (R-32) [14 DAYS AT 150 DEG.C. (300 DEG.F.) AT 275-300 PSIA] TABLE E-2

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Note:

a. Aging terriperature = 100 Deg.C (212 Deg.F)
 b. Qualitative scale: 0=no change, 1=slight, 2=large, 3=dissolved, deformed or melted
 c. % Change = change in before/after measurements of plastics

CN	TYPE	PARTIC-	CRACK-	CRAZ-	SOFTEN-	COLOR CHANGE	.0	AVERACE% AVERACE%	AVERAGE%	AVEHACE%
Ż	l	ULATES	ŊŊ	DN N	U N	AFTER AGING	CHANGE	CHANGE	CHANGE	CHANGE
		2	ء	ā	ف		ċ	Ċ	ij	ij
			ic		0	GREEN-CREAM/CREAM	-1.19	-0.81	0.00	-1.45
+) - -		c	C	WHITE/UGHT YELLOW	-0.19	0.0	0.40	0.0
	AUE IAL	- 0				NONE	-0.70	-0.67	-0.77	-4.09
-†	PHENOLIC				0	LUCITE-HAZY/LT.YELLOW	0.01	0.14	1.19	0.91
\uparrow				0	0	WHITE/UGHT FLESH	0.24	0.00	0.0	1.18
2 C	NE		0	0	0	NONE	-0.17	-0.13	0.39	-0.74
+	POLIANICOUTONC POLIVENICIENE TEPEPHTHALATE	, , ,	0	0	0	NONE	-0.11	-0.27	8. 0	-0.32
+		• c	0	0	0	NONE	-0.14	-0.13	0.79	0.13
-		0	0	0	0	NONE	0.14		0.0	0.30
+		c	0	0	0	NONE	-0.16		8.0 0	-1.09
1			c	0	0	NONE	-0.21	-0.13	8.0 0	-0.84
+			c	C	0	NONE	0.04	0.00	0.39	0.42
+	POLTE I TEAIMIUE			0	0	NONE	0.01	0.11	0.31	0.45
+				c	0	NONE	-0.06	-0.14	0.39	6 0.0
+	POLYARYLE I HEANE I UNE	-		c	c	NONE	-0.65	0.00	0.00	-0.14
+	POLYBUITCENE IENERATION				0	NONE	-0.16	-0.15	0.00	-0.89
1			0	0	0	NONE	-0.15		0.0	-0.89
+		c	0	0	0	NONE	0.00	8 0.0	8 0	0.26
- 			0	0	0	NONE	-0.07	-0.13	0.01	-0.11
-	66 NYLON. POLYAMIDE	0	0	0	0	NONE	-0.69	-0.27	-0.39	-1.32
1										
		Note:								
		a. Aging temperatur h. Orialitative scala:	mperature =	0=no change.	1=sliaht. 2=	(e = 100 ⊔eg.∪ 0≖no change, 1=slicht. 2=larce, 3=clissched, deformed or melted	d or melted			
		c. % Chang	te = change	in before/a	fter measure	c. % Change = change in before/after measurements of plastics				

PHYSICAL CHANGES IN PLASTICS EXPOSED TO 32 ISO VG POLYPROPYLENE GLYCOL BUTYL MONO ETHER AND HFC-32 (R-32) [14 DAYS AT 150 DEG.C. (300 DEG.F.) AT 275-300 PSIA] TABLE E-3

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			1		TABLE E-4a	4a				
Ö	TYPE	PARTIC- ULATES	CRACK- ING	CRAZ- ING	SOFTEN-	COLOR CHANGE AFTER AGING	AVERAGE% LENGTH	AVERAGE% AVERAGE% WIDTH THICKNESS	AVERAGE% THICKNESS	AVERAGE% WEIGHT CHANGE
		2	٩	ء	م					U U U U
ð T		i c	ic	io	10	GREN-CREAM/ALMOND	-0.76	-1.15	0.78	0.08
- 0			900	0	0	WHITE/YELLOW-TAN	0.78	0.40	1.59	5.40
+		0		0	0	NONE	-0.01	0.00	0.00	0.33
	POLIVINVI IDENE EL LIORIDE	0	0	0	-	LUCITE-HAZY/TAN	1.72	1.57	1.59	5.10
1		0	0	0	0	LUCITE-HAZY/WHITE	4.73	4.32	5.56	22.59
\uparrow	NF	0	0	0	0	NONE	-0.01	0.78	0.79	0.06
	POLYETHYI ENF TEREPHTHALATE	0	0	0	0	NONE	-0.23	0.39	0.00	4.13
+		0	0	0	0	CHOC./LIGHT-CHOC.	-0.10		-0.39	0.10
+	POLYTETRAFI LIOROETHYLENE	0	0	0	0	NONE	1.45	0.01	-0.43	4.21
╈		0	0	0	0	NONE	0.03	0.00	-0.39	-0.09
+		0	0	0	0	NONE	00.00	0.38	1	0.08
+		0	0	0	0	NONE	-0.07	0.39		0.08
+		0	0	0	0	NONE	0.00	0.00	0.31	0.26
+		0	0	0	0	NONE	-0.10	-0.38	0.00	-0.36
+	POLYRI TYI FNF TEREPHTHALATE	0	0	0	0	WHITE/FLESH	1.51	1.92	2.36	8.33
+-		0	0	0	0	NONE	0.01	0.00	0.0	0.02
+	POI VIMIDE - DF - ISO	0	0	0	0	NONE .	-0.04	0.23	0.0 0	-0.62
. a 	POI VIARVI FTHERETHERKETONE	0	0	0	0	NONE	0.10	0.0	0.0 0	-0.02
+	ICHID CRYSTAL POLYMER	0	0	0	0	NONE	0.20	0.79	0.79	-0.02
+	66 NYLON, POLYAMIDE	0	0	0	0	CREAM/LIGHT-BROWN	0.26	0.0	00.0	2.56
1										
		Note:) 						
		a. Aging ter	nperature =	100 Deg.C	:(212 Deg F) 1 = sinht 2=	a. Aging temperature = 100 Deg.C (212 Deg.F) ► Crueitertus scale: 0=no chance 1=siicht 2=larce 3=clissolved, deformed or melted	d or meltad			
		C. Chance = Ch	e suas. United	in hefore/a	fier measure	and in here after measurements of plastics				
		711585								

PHYSICAL CHANGES IN PLASTICS EXPOSED TO 32 ISO VG MINERAL OIL AND HCFC-123 (R-123) [14 DAYS AT 105 DEG.C. (221 DEG.F.) AT 275-300 PSIA] TARIE F_A

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E-4a

PHYSICAL CHANGES IN PLASTICS EXPOSED TO 32 ISO VG MINERAL OIL AND HCFC-123 (R-123) [14 DAYS AT 125 DEG.C. (257 DEG.F.) AT 275-300 PSIA] TABLE E-4b
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AVERAGE%	WEIGHT	CHANGE	v	0.34	FAILED	-0.29	3.47	50.53	-010	000	0.0	0.14	2.14	-0.38	-0.26	-017	7 47	14.0-	-0.19	8.38	-0.18	-0.55		0.01	-0.20	2.72	
	<u></u>	CHANGE	Ċ		FAILED	0.77	1 10	35.07	10.00 AC 0		0.78	0.78	-0.41	0.0	00.0		3	10.0	0.78	2.31	-1.43	-143		0.39	0.39	0.39	
AVERAGE% AVERAGE%	HLDIM	CHANGE	IJ	-0.13	FA	70.0	0.05			2.0	5.0	-0.13	0.32	0.13	0.27				-0.13	1.86	00.0		3	00.00	-0.27	0.41	
AVERAGE%	LENGTH	CHANGE	υ	-0.86	FAILED	900-		1.1.1		80.0-	-0.18	-0.21	0.86	000	900-	8	80-	00-	80.0	1.76	-0.03	0.07	20.01	90.0	0.00	0.24	
COLOR CHANGE	AFTER AGING			GREEN-CREAM/ALMOND	HNON	NONE				NUNE	LT.TAN/LT.BROWN	CHOCOLATE/BROWN	NONE	NONE	NONE		SONE	NONE	NONE	NONE	NONE		NOVE	NONE	NONE	CREAM/LT.BROWN	
SOFTEN-	ŰNG		à			2	5	0	m	0	0	0	0	C	0	0	0	0				2	0	0	0	0	
CRA7-	U U U	}	٩	ic	5 C	2	0	0	0	0	0	0	C			0	0	0	c			5	Ċ	0	o	0	
CRACK-	S UN		£	i	0	0	0	0	0	0	0	0	c			0	0	0	G	2 0	0	c	0	0	c	0	,
PARTIC-	III ATES	5		i c	0	0	0	0	0	0	0	c			5	0	0	c			5	0	0	0			>
TVDC						ACETAL	PHENOLIC	POLWINYLIDENE FLUORIDE	POLYPROPYLENE a.	POLYARYL SULFONE	DOI VETHVI ENE TEREPHTHAI ATE				POLYAMIUE-IMIUE	POLYAMIDE-IMIDE	POI YFTHERIMIDE				POLYBUIYLENE IEHEFHIMALAIE	POLYIMIDE-DF	DOI VIMIDE-DE-ISO	POLVIALVI ETHEBETHERKETONE			DOINTLON, FULTAWING
	Ż			ŀ	-†	с С	4	5	8	σ	t	╈	+	+	13	4	+	╈	+	-1	13	1 0	t	+	+		3

-	ived, deformed or meted	8
a. Aging temperature = 100 Deg.C (212 Deg.F)	b. Qualitative scale: 0=no change, 1=slight, 2=large, 3=dissolved, deformed or metted	c. % Change = change in before/after measurements of plastics

PHYSICAL CHANGES IN PLASTICS EXPOSED TO 32 ISO VG ALKYLBENZENE AND HCFC-124 (R-124) [14 DAYS AT 150 DEG.C. (300 DEG.F.) AT 275-300 PSIA] TABLE E-5

Ö	TYPE	PARTIC- ULATES	CRACK- NG	CRAZ- ING	SOFTEN-	COLOR CHANGE AFTER AGING	AVERACE% LENGTH	AVERAGE%	20	< `
							CHANGE	CHANGH	CHANGH	
		4	۵	م	מ		ú	U	υ	Ċ
			C	C	0	GREEN-CREAM/CREAM	-1.23			3.1-
2				o	0	WHITE/JIGHT YELLOW	-1.18	-0.14		-1.24
UN UN					c	NONE	-0.68		1.2	-4.36
1	HENOLIC			2		ILICITE-HAZY/LT BROWN	0.76	1.08	0.39	2.80
1					,-	NONE	3.13		3.11	14.30
Ĩ					0	NONE	-0.04			-0.54
1	DUTANT SULFORE	-		c	0	NONE	-0.14	-0.26	1	-0.41
	ALTE INTLEVE IENER I EINE	- 0	bC	0	0	CHC. JOI ATE/BROWN	-0.24	1		1
Ť			0	0	0	NONE	0.04		86.0	
			þc	0	0	NONE	-0.33	-0.26	-0.77	
1			þc	c	o	NONE	-0.38	-1.58	-0.76	
-j	JLYAMIUE IMIUE				c	NOVE	0.0	00.00	0.0	-0.57
-	FOLTE I HERIMIUE				c	NONE	-0.17	-0.74	0.16	
	OUFEU POLTE ITENIMIUE					GREY-GUNDARKER	60.0-	0.00	00.00	-0.36
-	FOLYARYLE IHEHALE IONE	-					-0.04	0.00	0.0	1.64
+	FOLYBUITLENE IENERATIONALATE	- 0				NONE	-0.09		0.00	-0.96
+			bc	oc	0	NONE	-0.09		1	96 .0
-			c	0	0	NONE	-0.43	-0.94		0.02
	OLIMATE ITERETIENETONE		oc	0	0	NONE	0.04		8 ^{.0}	8 0.0-
	LIQUID ON ISTAL FOLIMEN	-	0	0	c	CREAM/GREY	-0.22	0.40	0 0 0	-0.07
1				and the second state of th						
		Note:								
		a. Aging temperatur	mperature =	100 Deg.C	e = 100 Deg.C (212 Deg.F)	-				
		D. Queitet	As scale: 0=1	0=no change, 1	1 = 8! ght, 2 =	l =slight, 2=large, 3=disedv≋d, dei∋rmed or meteu hr meesuremente of nisetine		<u>.</u>		
		c. % Change = chan				DE ILI DELOLE/ERIEL ILESSO - 11:4112 OL DESSO				

E-5

PHYSICAL CHANGES IN PLASTICS EXPOSED TO 32 ISO VG MODIFIED POLYGLYCOL AND HFC--125 (R--125) [14 DAYS AT 150 DEG.C. (300 DEG.F.) AT 275-300 PSIA] TABLE E-6

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NO.	PARTIC-	CRACK-	CRAZ	SOFTEN-	COLOR CHANGE AFTER AGING	AVERACE%		AVERACE & AVERACE & WIDTH THICKNESS	4
			2	2		CHANGE	CHANGE	CHANGE	CHANGE
	à	ف	۵	ف		v	U	0	IJ
	io	0	0	0	GREN-CREAM/CREAM	-1.30			-1.75
	c	0	0	0	WHITEVELLOW	-2.72	-2.59	-1.59	-5.48
+-		0	0	0	NONE	-0.81	-2.64	-0.38	-4.48
E DOI WINYI IDENE EI LIORIDE	0	0	0	0	LUCITE-HAZY/BROWN	-0.07	-0.41	0.79	1.12
T	0	0	0	0	NONE	0.12	-1.34	0.0 0	1.33
ISOLVARYI SI IL FONF	0	0	0	0	NONE	-0.20	-1.46	-0.39	-0.86
Ŧ	0	0	0	0	LT. TAN/TAN	-0.31		-0.78	-0.39
Ŧ	c	0	0	0	CHOCOLATE/BROWN	-0.24		0.0	-0.03
40 1301 VIETBAELLIOBOETHALIENE	0	0	0	0	NONE	0.38	-3.03	0.0	0.86
-	0	0	0	0	NONE	-0.19	-1.06	8.0 0	-1.57
Ŧ	0	0	0	0	NONE	-0.14	-1.19	-0.77	-1.16
+		c	C	0	· NONE	-0.19	-1.33	800	-0.58
╀			c	0	NONE	-0.18	-0.90	-0.47	-0.62
Ŧ		c	0	0	NONE	-0.17	-0.80	-0.39	-0.38
10 POLIMILE INCIDE TOTAL	0	0	0	0	WHITE/CREAM	-0.56	-0.40	-0.38	0.06
┯	.0	0	0	0	NONE	-0.12	-0.15	0.00	-0.93
Ŧ	o	0	0	0	NONE	-0.18	-1.81	0.00	-0.97
Ŧ	C	0	0	0	NONE	-0.09		0.39	-0.21
+	0	0	0	0	LT. TAN/TAN	-0.10		0.0	-0.07
+	C	0	0	-	CREAM/DARKER	-0.60	-1.87	-3.79	-1.34

Note: a. Aging temperature == 100 Deg.C (212 Deg.F) b. Quaitative scale: 0==no change, 1=slight, 2=∴arge, 3=disscaved, deformed or malted c. % Change == change in before/after measurements of plastics

PHYSICAL CHANGES IN PLASTICS EXPOSED TO 32 ISO VG BRANCHED ACID POLYOL ESTER AND HFC-125 (R-125) [14 DAYS AT 150 DEG.C. (300 DEG.F.) AT 275-300 PSIA]

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AVERAGE%	WEIGHT	CHANGE	Ċ	-1.77	0.56	-4.56	2.76	3.61	-0.83	-0.60	-0.05	0.72	-1.64	-1 20		800-	-0.55	-0.41	0.16	-0.96	-0.96	-0.25		80.0	-1.79		
AVERACE% /	WIDTH THICKNESS WEIGHT	CHANGE	IJ	-0.39	0.79	-0.77	0.78	1.58	0.00	0.00	0.79	0.0	0000	80.0	88	19 19 19 10	0.47	0.00	0.0	0.49	000		38	B .0	00.0		
AVERAGE% /	HLOIM	CHANGE	Ů	-1.33	-0.27	-2.12			-0.93	-0.53	1.35	-0.10	080-	34	3	-0.66	-0. 64	-0.81	-0.67	0.15	000			-0.80	-1.20		
Γ.			Ċ	-1.20	0.10	-0.71	-2.02	0.91	-0.11	-0.24	2.83	-0.18	-0.26	0.4.0	-0-	-0.09	-0.14	-0.24	-0.37	-0.10	-010	900	00-n-	-0.04	-0.66		
COLOR CHANGE	AFTER AGING			GREEN-CREAM/CREAM	WHITE/LT YELLOW	NONE	UUCITE-HAZY/DAPKER	NONE	NONE	NONE	CHOCOLATE/BROWN	NONE	NONE		NONE	NONE	NONE	NONE	HONE	NONF	NONE		NONE	NONE	NONE		
SOFTEN-	ŰN		۵	c	c	þc	- 1	0	0	0	c	c	0	5	0	0	0	c				5	0	0	0		
CRA7-	DN N		ב					þ	0	0				D	0	0	c		oc	o		5	0	0	0		
CRACK-	S S S S	•	£						þ				5	0	0	0						0	0	0	0		
PARTC-	III ATES		ſ	s c									5	0	0	c			5	- 0	5	0	0	0	0	2	Note:
					PULYPHIPALAMIUE	ACEIAL				POLIANIL SULGIE		POLYHHENYLENESULFIDE	POLYTETHAFLUOHOE INTLENE	POLYAMIDE-IMIDE	POI VAMIDE - IMIDE				POLYARYLE IHERKE IONE	POLYBUITLENE IEMEMINALAIC	POLYIMIDE-DF	POLYIMIDE-DF-ISO	POI VIARVIETHERETHERKETONE)	I IN IN COVETAL DOI VAFR	E ANI ON DOI VANIOF		
	Ż				-	m	4	2	50	ה ק		=	12	13	VI.			2	-1	18	6	20	5	5 8	38	S	

a. Aging temperature = 100 Deg.C (212 Deg.F)
 b. Qualitative scale: 0=no change, 1=slight, 2=large, 3=dissdved, deformed or melted
 c. % Change = change in before/after measurements of plastics

PHYSICAL CHANGES IN PLASTICS EXPOSED TO 32 ISO VG POLYPROPYLENE GLYCOL BUTYL MONO ETHER AND HFC-125 (R-125) [14 DAYS AT 150 DEG.C. (300 DEG.F.) AT 275-300 PSIA] TABLE E-8

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TYPE	PARTIC-	CRACK-	CRAZ-	SOFTEN-	COLOR CHANGE	AVERAGE%	AVERAGE%	AVERAGE% AVERAGE% AVERAGE%	AVEHALEN
1	III ATES	ŰN	SN	D NI	AFTER AGING	LENGTH		THOMESS	WEIGHT
).	}		•		CHANGE	CHANGE	CHANGE	CHANGE
	ء	q	à	ġ		Ċ	Ċ	Ċ	Ċ
		C	0	0	GREEN-CREAM/CREAM	-1.30	-0.81	-1.17	-1.77
		0	0	0	WHITENELLOW	-0.85	-0.27	00.00	-0.05
	þ	0	0	0	NONE	-0.92	-1.21	-0.77	-3.82
DOI WINYI IDENE FI LIORIDE	0	0	0	0	LUCITE-HAZY/YELLOW	-0.01	0.00	0.79	1.25
POI VPROPYI ENE	0	0	0	0	NONE	0.19		0.40	1.40
NF NF	0	0	0	0	NONE	-0.20		8.0 0	-0.84
POLYETHYI ENE TEREPHTHALATE	0	0	0	0	NONE	0.04		8 0	-0.57
POI VEHENVI ENESULFIDE	0	0	0	0	CHOCOLATE/BROWN	-0.16	-0.79	8 0	-0.06
POI VTETRAFI LIOROETHYLENE	0	0	0	0	NONE	0:00	0.22	8 0	0.92
POLYAMIDE-IMIDE	0	0	0	0	NONE	-0.19	-0.27	80	-1.40
POLYAMIDE-IMIDE	0	0	0	0	NONE	-0.16	-0.27	8	0.1-
	0	0	0	0	NONE	-0.31		0.01	40.0-
	c	0	0	0	NONE	-0.09	I	0.16	-0.50
BOI VADVI ETHERKETONE	0	0	0	0	NONE	-0.09	0.00	0.0 0	-0.42
POLYNI ITYI ENE TEREPHTHALATE	-	0	0	0	WHITE/LT.PINK	-0.53	'	8 0	0.12
	c	0	0	0	NONE	-0.12	0.15	0.0	-0.83
	G	0	0	0	NONE	-0.09	-0.30	0.0	-0.7
		c	0	0	NONE	-0.14	-0.54	0.39	-0.21
ICH IN CEVETAL DOI VINER	, c	0	0	0	NONE	-0.01	0.00	00.00	-0.08
	c	С	0	0	NONE	-0.75	-0.67	0.0	-1.45

 a. Aging temperature = 100 Deg C (212 Deg F)
 b. Qualitative scale: 0=no change, 1=slight, 2=large, 3=dissolved, deformed or metbed
 c. % Change = change in before/after measurements of plastics Note:

E-8

PHYSICAL CHANGES IN PLASTICS EXPOSED TO 32 ISO VG BRANCHED ACID POLYOL ESTER AND HFC-134 (R-134) [14 DAYS AT 150 DEG.C. (300 DEG.F.) AT 275-300 PSIA] TABLE F_0

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AVERAGE% WEIGHT CHANGE	ċ	-1.50	1.93	-4.06	3.53	3.95	-0.55	0.50	90.00	0.95	-1.52	-1.05	-0.23	-0.28	-0.29	1.64	-0.50	-0.79	-0.23	-0.07	-0.89		
	Ċ	-0.39	0.79	-0.38	4.37	0.79	8.0 0	-0.39	0.0	0.84	0.39	-0.38	0.00	1.58	0.0	0.39	0.00	-0.48	-0.39	0.39	0.00		
AVERACES: AVERACES: WIDTH THICKNESS CHANGE CHANGE	Ċ	-1.99	-0.14	-3.27	1.22			-1.98	-1.19	-0.40	-0.40	-1.06	-0.80	-0.32	-1.90	-1.85	0.15	0.15	-0.13	-1.19	-2.12		
AVERAGE% LENGTH CHANGE	IJ	-1.20	0.45	-0.65	1.47	0.78	-0.20	-0.16	-0.21	0.33	-0.31	-0.18	60.0-	-0.07	-0.19	0.00	-0.07	60.0-	-0.24	0.01	-0.66		
COLOR CHANGE AFTER AGING		GREEN-CREAM/CREAM	WHITE/YELLOW	NONE	LUCITE-HAZY/GREY	LUCITE-HAZY/MHITE	NONE	LT. TAN/UGHTER	CHOCOLATE/BROWN	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE		
SOFTEN- ING	ġ.	0	0	0	-		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		1
CRAZ- ING	Ĺ	io	0	0	0	0	0	0	0	c	0	0	0				0	0	0	0	0		
CRACK- ING	2	io	0	0	0	0	0	0	0	c	c	c					0	c		0	0		
PARTIC- ULATES	<u>_</u>	ic)	·c	0	c	0	c	c	c			þ				• •		þc	c	,		Note:
HYPE			ACTAI		POI WINVI IDENE EL LORIDE		NF NF	POLIMITE SOL CITE						POLTE I TENIMIUE		POLTE I TENNE I ONE			POLYIMIUE UF - ISU DOL VIADVI ETHEDETHERKETONE)		RENVI ON POLYAMIDE		
ÖN			- 0	1	t u	T	00	t	+-	+	+	+	+	+		-	-+-	+	-+-	+	220	1	

Note: a. Aging temperature = 100 Deg.C (212 Deg.F) b. Qualitative scale: 0=no change, 1=slight, 2=large, 3=dissolved, deformed or matted c. % Change = change in before/after measurements of plastics

PHYSICAL CHANGES IN PLASTICS EXPOSED TO 32 ISO VG MODIFIED POLYGLYCOL AND HFC-134a (R-134a) [14 DAYS AT 150 DEG.C. (300 DEG.F.) AT 275-300 PSIA]

TABLE E-10

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C				CRA7-	SOFTEN-	COLOR CHANGE	AVERAGE%	AVERACE% AVERACE%		AVERACE%
Ż						AFTER AGING	LENGTH	HLOIM	THIOKNESS	WEIGHT
		2					CHANGE	CHANGE	CHANGE	CHANGE
		2	2	<u>م</u>	٩		IJ	ن	Ċ	IJ
[, 			ic		c	GREEN-CREAM/ALMOND	-1.10		0.00	-1.40
-					-	WHITENELOW	-4.07	-2.88	-0.40	-9.22
m •	ALCE IAL REVISION				. 0	NONE	-0.61		-0.38	-3.94
4						LUCITE-HAZY/BROWN	0.12	0.82	1.20	1.49
0 0				0	0	NONE	0.27	0.14	0.79	1.78
	NF		0	0	0	NONE	-0.28	1.07	80	-0.54
	POLINITE OUL CITE		0	0	0	NONE	-0.11	-0.67	8. 0	-0.07
2;	POLICIA ENERUI FIDE		0	0	0	NONE	-0.14			60 ^{.0}
- ;		0	0	0	0	NONE	0.28			1.61
<u>u</u>		C	0	0	0	NONE	-0.17	-0.40	8 0	-1.35
2) c	0	0	0	NONE	-0.01		8 0	-1.24
			0	0	0	NONE	-0.13	•		-0.37
			C	0	0	NONE	-0.17	0.16	0.63	-0.44
2				C	0	DAPKER EDGES	-0.07	0.00	0.00	-0.29
	POLIZANI LE INENNE I CINE POLIZANI TAVI ENE TEDEDUTUAL ATE	þ	c	0	0	WHITE/ALMOND	-0.56	-0.14		0.16
			0	0	0	NONE	-0.10	0.89	0.00	-0.70
			c	0	0	NONE	-0.10	0.00	-0.48	-0.91
212	POLITIMILE - UF - 130		0	0	0	NONE	-0.21	-0.27	0.0	-0.17
5	LICHING COVERNIE DOI VALE		C	0	0	NONE	-0.04	0.00	0.0 0	-0.01
N C	ENVION POLYAMIDE	0	0	0	0	CREAM/LIGHT TAN	-0.01	-0.67	0.0	-0.82
		Note:								
			- on the second							

a. Aging temperature = 100 Deg.C (212 Deg.F)
 b. Qualitative scale: 0=no change, 1=slight, 2=large, 3=dissolved, deformed or melted
 c. % Change = change in before/after measurements of plastics

PHYSICAL CHANGES IN PLASTI	PLASTICS EXPOSED TO 32 ISO VG POLYPROPYLENE GLYCOL DIOL AND HFC-134a (R-1) [14 DAYS AT 150 DEG.C. (300 DEG.F.) AT 275-300 PSIA]
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TABLE E-11

	TYPE	PARTIC-	CRACK-	CRAZ-	SOFTEN-	COLOR CHANGE	AVERAGE%	AVERAGE%	AVERAGE% AVERAGE%	₹
j	1	IN ATES	5 N	DN I	5NG	AFTER AGING	HENGTH	HLDIM	THIORNESS	WEIGHT
							CHANGE	CHANGE	CHANGE	CHANGE
		ف	ف	ف	ف		v	Ċ	Ċ	v
•		c	0	0	0	GREEN-CREAM/ALMOND	-1.04	-0.40	-1.92	•
- 0			0	0	-	WHITE/LT. YELLOW	0.53	0.68	-3.03	0.50
1	DHENOLIC	0	0	0	0	NONE	-0.64	-0.80	-1.90	-3.96
ru	DOI WINYI IDENE FI LIORIDE	0	0	0	0	LUCITE/TAN	1.56	1.63	0.41	3.62
+		0	0	0	0	NONE	0.70	0.54		3.84
1-	LIN.	0	0	0	0	NONE	0.03	0.00	-1.52	-0.46
	POLIZITICOU CIT	0	0	0	0	NONE	-0.01	0.54	-0.78	0.83
+	DOI VEHENVI ENESI II FIDE	0	0	0	0	CHOCOLATE/UGHTER	-0.08	0.13	-1.88	60.0
+	DOI VIETRAFI LICROFTHYI FNF	0	0	0	0	NONE	0.38	0.00	-1.48	2.10
+		0	0	0	0	NONE	0.04	-0.53	-0.38	-1.41
+			0	0	0	NONE	0.11	-0.13	-1.90	-0.84
t u				0	0	NONE	0.27	00.00	-1.90	-0.34
+		0	-	0	0	NONE	-0.07	-0.21	-0.46	-0.29
+	BOI VARVI ETHERKETONE	c	0	0	0	NONE	0.04	-0.13	-1.92	-0.33
+			0	0	0	WHITE/FLESH	0.84	0.81	-1.52	3.52
+		0	0	0	0	NONE	-0.03		-3.28	-0.64
+		0	0	0	0	NONE	-0.10	-0.15		-0.88
+	POI VIABVI ETHERETHERKETONEN	0	0	0	0	NONE	-0.01	0.13		-0.08
+	I IOLIID CRYSTAL POLYMER	0	0	0	0	NONE	0.06	1	-0.78	-0.17
+	66 NYLON. POLYAMIDE	0	0	0	0	NONE	-0.37	0.14	-1.54	-0.59
1										
		Note:								
		a. Aging ter	mperature =	i = 100 Deg.C (212 Deg.F)	(212 Deg.F)					
		b. Qualitative scale: (ve scale: 0=1	no change.	1=slight, 2=	0=no change, 1=slight, 2=large, 3=dissolved, deformed or melted	d or melted			
		c. % Change = chan	te = change	in before/ar	ter measurer	igh in before/after measurements of plastics				

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IN PLASTICS EXPOSED TO 32 ISO VG BRANCHED ACID POLYOL ESTER AND	14 DAYS AT 150 DEG.C. (300 DEG.F.) AT 275-300 P
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PHYSICAL CHANGES IN PLASTICS I	
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WEIGHT	CHANGE	IJ	-1.85	0.82	-4.12	2.26	4.15	-0.79	0.06	0.02	8 .	-1.43	-0.96	-0.36	-0.34	-0.28	0.84	-0.55	-0.82	-0.15	-0.05	-1.71	
	CHANGE	IJ	-0.78	0.79	-0.38	1.59	0.79	0.00	0.00	0.79	0.42	0.00	00.00	0.0	0.47	0.00	0.38	0.0	8. 0	0.78	0.39	0.00	
WIDTH THICKNESS	CHANGE	Ŭ		0.21	-0.80	1.22		00.0	-0.27			-0.13	0.00	-0.40		0.00	0.00				-0.13	-0.67	
AVERACE% LENGTH	CHANGE .	Ċ	-1.21	0.16	-0.64	96 .0	66.0	-0.23	-0.06	-0.11	0.40	-0.10	-0.10	-0.13	-0.08	-0.24	-0.27	-0.07	-0.15	-0.20	-0.01	-0.78	
COLOR CHANGE AFTER AGING			GREEN-CREAM/ALMOND	WHI TE/CREAM	NONE	LUCITE-HAZY/GRAY	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	NONE	
SOFTEN-	}	ف	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CRAZ- NG-	2	ā		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
CRACK- NG	2	٩	ic	c	0	0	o	c	0	0	0	c	o	С	0	0	0	0	0	0	0	0	
PARTIC-		ء	ic			0	c				c) O	c					0	o	0	0	0	
TYPE								AIC .	POLIANIL SOL ONE POLYETUNI ENE TEREPHTHAI ATE							BOI VABVI ETUEDKETONE	POLIANIE II ELINE IONE POLVBI ITVI ENE TEBEPHTHAI ATE			POLINING CI ICO POLIVINIC		RENVI ON POLYAMIDE	
Ö	-			+		t u	+	\uparrow	7	╈	╈	+	+	+	+		+	+	+	+	+	+-	1

a. Aging temperature = 100 Deg.C (212 Deg.F) b. Qualitative scale: 0=no change, 1=slight, 2=large, 3=dissolved, deformed or melted c. % Change = change in before/after measurements of plastics

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-			[14 DAY	/S AT 150	DEG.C. (30 TABLE	DAYS AT 150 DEG.C. (300 DEG.F.) AT 275–300 PSIA) TABLE E–13	۲.			
	TYPE	PARTIC-	CRACK-	CRAZ-	SOFTEN-	COLOR CHANGE	AVERAGE%	AVERAGE%	-	AVERAGE%
Ż	J 	ULATES	5 N	5 N	ING	AFTER AGING	CHANGE	CHANGE	THICKNESS	WEIGHT CHANGE
		ف	ġ	ف	ف		IJ	Ċ	ij	Ü
-		io	0	0	0	GREEN-CREAM/ALMOND	-1.17	-0.54	8.0 0	-1.61
- 0		0	0	0	0	WHITE/VELLOW	-0.19	0.41	0.80	-0.08
2		0	0	0	0	NONE	-0.74	1		-4.33
ru	POI WINYI IDENE ELI IORIDE	0	0	0	0	LUCITE-HAZY/YELLOWED	0.95			2.32
			0	0	0	NONE	1.01		1.59	4.37
0	LTN LTN		0	0	0	NONE	-0.17	-0.13	0.79	-0.77
n Ç	POLYETHYLENE TEREPHTHALATE	0	0	0	0	NONE	-0.09		0.40	-0.04
27	POI VEHENVI ENESI II FIDE	0	0	0	0	NONE	-0.21	0.27	0.79	0.11
		C	0	0	0	NONE	0.22	0.41	1.63	0.75
4 9		0	0	0	0	NONE	0.10			-1.49
2		0	0	0	0	NONE	-0.11			-1.03
r u		0	0	0	0	NONE	0.01		1.18	-0.43
2 4		0	0	0	0	NONE	-0.25		-	-0.40
2	POI VARVI FTHFRKFTONE	0	0	0	0	NONE	-0.10	0.14		-0.26
đ	DOI VRI ITVI ENE TEREPHTHAI ATE	0	0	0	0	NONE	-0.33			0.66
		0	0	0	0	NONE	-0.15	1	1	-0.89
		0	0	0	0	NONE	-0.12			-0.81
2 c	PO: VIARVIETHERETHERKETONEN	0	0	0	0	NONE	-0.07			-0.07
3 6		0	0	0	0	NONE	0.00			-0.01
3 8	ENVION POLYAMIDE	0	0	0	0	NONE	-0.59	-0.27	0.39	-1.04
								_		
		Note:								
		a. Aging temperatur h. Oualitetive scale:		: 100 Deg.C no change.	re = 100 Deg.C (212 Deg.F) 0=no chance. 1=slicht. 2=	re = 100 Deg.C (212 Deg.F) 0=no chance. 1=slicht. 2=larce, 3=clisschved, deformed or melted	d or melted			
		c % Chang	e = change	in before/a	tter measure	c. % Change = change in before/after measurements of plastics	_1			

PHYSICAL CHANGES IN PLASTICS EXPOSED TO 22 ISO VG MIXED-ACID POLYOL ESTER AND HFC-134a (R-134a) I14 DAYS AT 150 DEG.C. (300 DEG.F.) AT 275-300 PSIA)

E-13

PHYSICAL CHANGES IN PLASTICS EXPOSED TO 32 ISO VG POLYPROPYLENE GLYCOL BUTYL MONO ETHER AND HFC- 134a (R-134a) [14 DAYS AT 150 DEG.C. (300 DEG.F.) AT 275-300 PSIA] TABLE E-14
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ON N	TYPE	PARTIC-	CRACK-	CRAZ-	SOFTEN-	COLOR CHANGE	AVERAGE%	AVERACE%	AVERAGE% AVERAGE% AVERAGE%	AVERAGE%
		ULATES	DN N	ŰN.	UN N	AFTER AGING	CHANGE	CHANGE	CHANGE	CHANGE
		ء	à	à	Ġ		Ċ	Ċ	Ċ	IJ
•		ic	o	0	0	GREEN-CREAM/ALMOND	-1.07	-0.67	-1.17	-1.26
- 9	ACTAI ACTAI	0	0	0	0	WHITE/UGHT YELLOW	-0.70	-0.27	-0.39	-1.13
	DHENOLIC	0	0	0	0	NONE	-0.57	-0.94	-1.16	-4.60
r	POI WINYI IDENE FI LIORIDE	0	0	0	0	LUCITE/TAN	0.61	1.09	-0.78	
α	POI YPROPYI ENF		0	0	0	NONE	0.58	0.54	-1.54	
0	NF		0	0	0	NONE	-0.20	-0.13	0.78	-0.66
	POLYETHYLENE TEREPHTHALATE	0	0	0	0	NONE	0.06	0.40	-0.78	0.54
2	POI VPHENVI ENESUII FIDE	0	0	0	0	CHOCOLATE/LIGHTER	-0.08	0.27	-1.53	0.0
-	POI VTETRAFLUOROETHYLENE	0	0	0	0	NONE	0.32	0.61	8 0	0.86
16		0	0	0	0	NONE	0.27	-0.13	-4.07	-1.45
2		0	0	0	0	NONE	0.03	-0.13	0.00	-0.88
	POLYETHERIMIDE	0	0	0	0	NONE	0.26	0.27	-0.77	-0.67
2	MODIFIED POLYETHERIMIDE	0	0	0	0	NONE	0.00	0.11	-0.61	-0.27
	DOI VARVI ETHERIKETONE	0	0	0	0	NONE	-0.07	-0.27	0.00	-0.31
	POLIZATI ENE TEREPHIHALATE	0	0	0	0	WHITE/FLESH	-0.56	-0.54	-1.53	0.56
			0	0	0	NONE	80 .0-		-0.96	-0.59
		0	0	0	0	NONE	C. 0-	0.00	-0.48	-0.84
3 2	POI Y ARVI ETHERETHERKETONE	0	0	0	0	NONE	0.01		-0.78	0.01
36	I IOUID CRYSTAL POLYMER	0	0	0	0	· NONE ·	0.07		-1.17	
23	66 NYLON. POLYAMIDE	0	0	0	0	NONE	-0.24	-0.27	-1.16	-0.94
								_		
		Note:			1					
		a. Aging temperature	nperature =	100 Deg C	= 100 Deg C (212 Deg.F)					
		b. Qualitative scale: U	AB SCARE: U=	no cnange, in hefore/af	1 = Signi, 2 = Ter measurer	i≖no change, 1 =signi, ∠=iarge, 3=uissaveu, ueroimeu or imateu •e in hefore/after measurements of nestics				

PHYSICAL CHANGES IN PLASTICS EXPOSED TO 32 ISO VG ALKYLBENZENE AND HCFC-142b (R-142b) [14 DAYS AT 150 DEG.C. (300 DEG.F.) AT 275-300 PSIA]

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NO.	TYPE	PARTIC-	CRACK-	CRAZ-	SOFTEN-	COLOR CHANGE AFTER AGING	AVERACE%	AVERAGE% WIDTH	Average% Average% Average% Width Thiokress Weight	AVIERACE% WEIGHT
					2		CHANGE	CHANGE	CH SGE	CHANGE
		م	ف	ف	ف		Ċ	Ċ	ij	IJ
		ic	ic	c	0	GREEN-CREAM/CREAM	-1.26	-0.67	0.39	-1.35
+) c	0	0	WHITE/LT. YELLOW	-0.60	-0.41	0.00	-0.69
				0	0	NONE	-0.48	-1.46	-0.38	-2.65
+			oc	0	0	LUCITE-HAZY/YEL-BR'N	06.0	1.63	1.19	2.54
+		bc		0	0	LUCITE-HAZY/WHITE	3.59	3.78	4.33	15.13
	NE		0	0	0	NONE	-0.13	0.00	0.78	-0.58
	POLIANIL SOL CITE DOI VETHYI ENE TEBEPHTHAI ATE	> ~	0	0	0	UGHT TAN/UGHTER	0.31	-0.26	0.0	0.62
+	DOI VEHENVI ENESI II FIDE	0	0	0	0	CHOCOLATE/BROWN	-0.20	-0.53	0.39	0.30
+			0	0	0	NONE	0.32	-0.91		1.22
+		þc	C	0	0	NONE	-0.16	0.00	-0.39	-1.53
			c	0	0	NONE	-0.11	-0.26	0.00	-1.20
	CE-INIUC CDIMIDE		0	0	0	NONE	-0.20	0.00	0.00	-0.37
+			0	0	0	NONE	-0.11	-0.48	0.94	0.29
	MOUFIEU FULENCIALI II III IIIVIUL		C	0	0	NONE	-0.07	0.53	0.39	-0.29
-	POLIANTE INCINE IONE	, -		0	0	WHITE/LIGHT FLESH	0.06	0.27	00.00	1.73
				0	0	NONE	0.06	0:30	00.00	-0.31
-		c	0	0	0	NONE	-0.13	0.00		-0.86
+			0	0	0	NONE	-0.21	-0.67	0.78	0.10
			0	0	0	NONE	0.06		-0.39	-0.06
+=	66 NYLON POLYAMIDE	, -	0	0	0	NONE	-0.80	-1.73	0.01	-1.73
1										
		Note:								
		a. Aging temperature	nperature =	100 Deg.C	= 100 Deg.C (212 Deg.F)	loma 9-dissolvad deforme	d or method			
		D. CUARTARVE SCARE: U	e scale: u=1	io criarige, in hefore/af		Jerio Citarye, i =sigri, 2=iarge, 0=uasoryou, dalomed of manu an in befine/after measurements of nlashine				
						STREET IN SILE				

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	PHYSICAL CHANGES IN PLASTICS EXP	N PLASTIC		ED TO 3	2 ISO VG	<u>OSED TO 32 ISO VG BRANCHED ACID POLYOL ESTER AND HFC-143a (R-143a)</u>	YOL ESTER	AND HFC-	-143a (R-	143a)
				S AT 150 I	DEG.C. (30 TABLE	[14 DAYS AT 150 DEG.C. (300 DEG.F.) AT 275-300 PSIA] TABLE E-16	iA)			
CZ	TYPE	PARTIC-	CRACK-	CRAZ-	SOFTEN-	COLOR CHANGE	%	AVERAGE% AVERAGE%	h	AVERAGE%
2		ULATES	Ű	UN N	UN N	AFTER AGING	LENGTH	HIDIM	THICKNESS	WEIGHT
							CHANGE	CHANGE	CHANGE	CHANGE
		ف	ف	ف	ف		ö	ij	ij	ن
-	POLYPHTHALAMIDE	0	0	0	0	GREEN-CREAM/CREAM	-1.23	-1.34	8 0	-1.63
e.	ACETAL	-	0	0	0	WHITE/LT. YELLOW	0.10	-0.40	1.19	0.73
•	PHENOLIC	0	0	0	0	NONE	-0.97	-2.24	-0.71	-4.18
r Ir	POI WINYI IDENE FLUORIDE	0	0	0	0	LUCITE-HAZY/GREY	1.21	1.08	2.38	2.64
0	POLYPROPYLENE a.	0	0	0	-	NONE	0.75	0.68	0.39	4.00
0	NF	0	0	0	0	NONE	-0.18	-0.53	0.0	-0.81
, F	POI VETHYLENE TEREPHTHALATE		0	0	0	LT. TAN/LIGHTER	-0.17	-0.66	0.40	-0.12
2	POI VPHENVI ENESULFIDE		0	0	0	CHOCOLATE/BROWN	-0.42	-0.53	0.78	-0.10
÷	POI VIETRAFI I IOROFTHYI FNF	0	0	0	0	NONE	0.30	-1.72	1.24	1.12
10		0	0	0	0	NONE	-0.24	-0.93	8 0	-1.59
4	POLYAMIDE-IMIDE	0	0	0	0	NONE	-0.20	-0.53	00.0 0	-1.15
r F		0	0	0	0	NONE	-0.23	-0.53	0.0 0	-0.41
2		0	0	0	0	NONE	-0.16	-1.01	0.31	-0.34
	POI VARYI FTHERKETONE	0	0	0	0	NONE	-0.13	-2.12	8 0	0.12
đ	POI VRUTYLENE TEREPHTHALATE	0	0	0	0	NONE	-0.55	1	8 0	0.47
g	POLYIMIDE-DF	0	0	0	0	NONE	-0.10		8 0	-0.64
200	POI VIMIDE-DF-ISO	0	0	0	0	NONE	-0.10	0.15	0.49	1.07
2	POI VIARVIETHERETHERKETONE)	0	0	0	0	NONE	-0.19	-1.33	8 0	-0.22
5	LIQUID CRYSTAL POLYMER	0	0	0	0	NONE	-0.07	-0.27	8.0 0	90.00
23	66 NYLON, POLYAMIDE	1	0	0	0	NONE	-0.88	-0.54	0.0	-1.77
		Note:			(1					
		a. Aging temperatur		100 Deg.C	(2 Ueg.r) 1=slicht 2=	e = 100 Deg.C (∵ 2 Deg.F) 0=no chance 1=slicht 2=larre 3=dissolved deformed or melted	d or melted			
		r & Change = chai	e = chance i	in before/af	ter measurer	are in before/after measurements of plastics				
		2								

E-16

	TYPE POLYPHTHALAMIDE ACETAL ACETAL ACETAL POLYPHONULC POLYPTHONULC POLYPTHENCENE POLYPHENYLENE ELUORIDE POLYPHENYLENE ELUORIDE POLYPHENYLENE TEREPHTHALATE POLYAMIDE – IMIDE POLYAMIDE – IMIDE POLYAMIDE – IMIDE POLYAMIDE – IMIDE POLYMIDE – DF – ISO	PARTIC- ULATES D D D D D D D D D D D D D D D D D D D	CRACK- ING OOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOOO	CBAZ CBAZ CBAZ CBAZ					AVERACE% CHANGE% 0.78 0.78 0.397 0.3	AVERAGE & WEIGHT CHANGE C. CHANGE C. CHANGE C. C 1.10 - 1.10 - 4.79 - 4.79 - 4.79 - 0.41 - 1.44 - 1.44 - 0.14 - 0.144 - 0.144 - 0.144 - 0.144 - 0.144 - 0.144 - 0.125 - 0.58
	POLY(ARYLETHERETHERKETONE)	00	00	00	00	NONE	-0.01		0.00	-0.04
+-1		Note:	0	0	0	NONE	-0.70	-0.40	00.0	-1.7

a. Aging temperature = 100 Deg.C (212 Deg.F)
 b. Qualitative scale: 0=no change, 1=slight, 2=large, 3=dissolved, deformed or melted
 c. % Change = change in before/after measurements of plastics

PHYSICAL CHANGES IN PLASTICS EXPOSED TO 32 ISO VG ALKYLBENZENE AND HFC-152a (R-152a) [14 DAYS AT 150 DEG.C. (300 DEG.F.) AT 275-300 PSIA] TABLE E-17

E-17

FTER AGING	(; ;	% ELONG.	-78.46	-49.48	-5.49	-41.73		-64.09	ſ			30./3	-8.20		2.04	4.30	N/A	+				NIA					
% CHANGE AFTER AGING		TENSILE	-22.07		-16.78	-4.18	·		-65.98	17.15	28.86	-41.86	- 10.66	1.31	6.50	8.72	N/A	-3.97	-7.07		-						
STING		% ELONG.	8.46	11.42	6.10	61.42	4			12.99	253.54			68.90	47.32	64.96	A/A	-				VIIA	A/N	u		C	
AFTER AGING TESTING	ILE	kg/mm ^ 2	6.29	3.10	5.04	4.99	3.42	10.30	4.95	17.51	3.51	9.61	14.44	11.22	10.54	11 42	N/A	7 34	7 08	10.44		מ.עם	N/A				
AFTEF	TENSILE	lbm/in ^ 2	8953	4415	7171	7102	4865	14646	7039	24908	4998	13668	20539	15957	14998	16240	-	10422	11246		14040	14192	N/A	- VOLUL NO			
		% ELONGATION	39.29	22.60	6.46	105.39	372.76	70.16	12.48	10.24	262.68	17.17	20.16	64.33	46.38	80.03	-+-	_	1222	10.11 10.12	10.04	10.35	81.30		ASED ON AN AVERAGE OF TWO IENSILE LESIS. EAGEPT NO.10 WITION SO	FERE AT AMBIENT CONDITION AND WITHIN 24HHS AFTER AGING CONDITIONS	
NG		kg/mm ^ 2	8.08	686	909	5.21	3.79	8.95	14.55	14.95	2.73	16.53	16.16	11.07	06.6	1001	10.01	80.C	+0. V	00.0	10.10	8.78	7.10		AGE OF TWO		IIONS.
INTIAL TESTING		lbm/in ^ 2	11489	9754	B617	7412	5397	12728	20689	21262	3879	23510	22990	15750	14082	3001	14946	1240	C0801	80771	14360	12488	10093		ON AN AVEF		HOVED BY CONDITIONS
	IONAL AREA		10.65	10.57	10.01	10.30	10.62	10.77	10.85	10.76	8.63	10.69	10.67	1073	10.57	10.01	10.63	10.95	14./6	14.42	10.90	10.69	10.64		ICNS BASED	ULLS WERE	R DESTHOYE
	CROSS-SECTIONAL	in^2	0.017	310.0	010.0	0.015	0.016	0.017	0.017	0.017	0.013	0.017	0.017	0.017	340 0	010.0	0.016	0.017	0.023	0.0	0.017	0.017	0.016		ALL CALCULATICNS B	ALL TENSILE PULLS W	N/A = TEST BARDESI
	TVDF			POLYPHIHALAMIUE	ACETAL	PHENOLIC			POLTARIL SULTONE						POLYETHERIMIDE	MODIFIED POLYETHEHIMIDE	POLYARYLETHERKETONE	POLYBUTYLENE TEREPHTHALATE	POLYIMIDE - DF	POLYIMIDE - DF - ISO	POLY(ARYLETHERETHERKETONE)	LIQUID CRYSTAL POLYMER	66 NYLON, POLYAMIDE				
) Z		1	ო		1	T	+	1	-†-	+		1	-	16	17	18	19	20	1-	T	+	1			

TENSILE PROPERTIES OF PLASTICS EXPOSED TO 32 ISO VG MINERAL OIL AND HCFC-22 (R-22) [14 DAYS AT 150 DEG.C. (300 DEG.F.) AT 275-300 PSIA] TABLE F-1

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							ATCA	ALTER AGING TESTING	DINIC	SUDANCE AFTED AGING	ETED AGING
				INTIAL LESTING	20		ALIC	U NUDA L	DNIIO		
CN	TYPE	CROSS-SECTIONAL	TIONAL AREA	TENSILE	SILE		TEN	TENSILE			
; ;		in^2	mm ^ 2	lbm/in ^ 2	kg/mm ^ 2	% ELONGATION	lbm/in ^ 2	kg/mm ^ 2	% ELONG.	TENSILE	% ELONG.
1		0.017	10.65	11489	8.08	39.29	14312	10.06	11.61	24.58	-70.44
- 6	ACETAL	0.016	10.57	9754	6.86	22.60	9485	6.67	22.44	-2.77	-0.70
1	DHENCILC	0.017	10.76	8617	6.06	6.46	8051	5.66		-6.57	-29.88
ru	POLYVINYI DENE FI LIORIDE	0.016	10.30	7412	5.21	105.39	6198	4.36		-16.37	10.01
+	POL YPROPYI FNF	0.016	10.62	5397	3.79	372.76	16098	11.32	~	-	-44.34
1	POLYARYI SULFONE	0.017	10.77	12728	8.95	70.16	14308	10.06	~		-57.35
1	POI YETHYI FNE TEREPHTHALATE	0.017	10.85	20689	14.55	12.48	18614			1	-22.71
+	DOI YPHENYI ENESLII FIDE	0.017	10.76	21262	14.95	10.24	25238	17.74		-	-11.54
	POLYTETRAFI UDROFTHYLENE	0.013	8.63	3879	2.73	262 68	3953		95.08		-63.80
+		0.017	10.69	23510	16.53	1717	28082	-	19.88	19.45	15.83
+		0.017	10.67	22990	16 16	2016	22575	15	18.90	- 1.80	-6.25
-	DOI VETHERIMDE	0.017	10.73	15750	11.07	64 33	16150			2.54	-2.39
+		0.016	10.57	14062	06 6	46 38	14780	10 39	38.68	4.96	- 16.60
	DOLVADVI ETHERKETONE	0016	10.63	14946	1051	62 28	16098	=	56.10		-9.92
- 0	POLIANI LLIILERILIONE		10.95	7240	5.09	162.40	7748	5.45	12.99	7.01	-92.00
t			14.76	10865	7.64	22 72	11071	7.78	18.31	1.90	-19.41
		0.022	14.42	12209	8.58	17.99	11451	8.05	13.78	-6.21	-23.41
+	POLYARYI ETHERETHERKETONE)	0.017	10.90	14360	10.10	75.04	14737	10.36		2.63	-13.43
+	LIOUID CRYSTAL POLYMER	0.017	10.69	12488	8.78	10.35	14503	10.20		16.13	6.46
+	66 NYLON, POLYAMIDE	0.016	10.64	10093	7.10	81.30	11129	7.82	28.35	10.27	-65.13
1		ALL CALCULATIONS B		ON AN AVER	AGE OF TWO	ASED ON AN AVERAGE OF TWO TENSILE TESTS.	EXCEPT NO.1	EXCEPT NO.16 WHICH IS 5	v.		
		ALL TENSILE PULLS W		FREAT AMBIENT CONDI POVED BY CONDITIONS	CONDITION A	iere at ambient condition and within 24Hrs after aging conditions bover by conditions	AFTER AGIN	G CONDITIO	ġ		

TENSILE PROPERTIES OF PLASTICS EXPOSED TO 32 ISO VG BRANCHED ACID POLYOL ESTER AND HFC-32 (R-32) [14 DAYS AT 150 DEG.C. (300 DEG.F.) AT 275-300 PSIA] TABLE F-2

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REA TENSILE LENSILE REVAIL TENSILE TENSILE TENSILE TENSILE TENSILE TENSILE Revail TENSILE Revaile TENSILE Revaile TENSILE Revaile	REA TENSILE Construct RENSILE TENSILE TENSILE TENSILE TENSILE TENSILE Rensile TENSILE Rensile TENSILE Rensile TENSILE TENSILE Rensile Rensile TENSILE Rensile TENSILE Rensile TENSILE Rensile			INIAL FOIL	De			11			
2 Ibm/in \sim 2 % ELONGATION Ibm/in \sim 2 % Elong 2	2 Ibm/in 2 kg/mm 2 % ELONGATION Ibm/in 2 Num 2 Second 12.01 22.61 5393 317 22.83 -53.81 </th <th>ROSS-</th> <th>SECTIONAL ARE</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>TENSILE</th> <th>% FLONG</th>	ROSS-	SECTIONAL ARE							TENSILE	% FLONG
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10.63 14946 10.51 62.28 16330 11.07 7.87 -1.21 10.95 7240 5.09 162.40 7152 5.03 7.87 -1.21 14.76 10865 7.64 22.72 11107 7.81 17.52 2.23 14.42 12208 8.58 17.99 10835 7.62 13.19 -11.25 10.90 14360 10.10 75.04 14005 9.85 42.32 -2.47 10.90 12208 8.78 10.35 14405 10.13 9.06 15.35 10.69 12488 8.78 10.35 14405 10.13 9.06 15.35 10.64 10033 7.10 81.30 11734 8.25 67.13 16.26	0.63 14946 10.51 62.28 10000 7.87 -1.21 0.95 7240 5.09 162.40 7152 5.03 7.87 -1.21 4.76 10865 7.64 22.72 11107 7.81 17.52 2.23 4.42 12066 8.58 17.99 10835 7.62 13.19 -11.25 0.90 14360 10.10 7.504 14005 9.85 42.32 -2.47 0.90 14360 10.10 7.504 14005 9.85 42.32 -2.47 0.64 10093 7.10 81.30 11734 8.25 67.13 16.26 0.64 10093 7.10 81.30 11734 8.25 67.13 16.26 16.54 7.00 81.30 11734 8.25 67.13 16.26 16.54 10093 7.10 81.30 11734 8.25 67.13 16.26 16.54 10093 7.10 <t< td=""><td>ō</td><td></td><td></td><td></td><td>40.30</td><td></td><td>00.01 1 2 1 2 1</td><td></td><td></td><td>-12.77</td></t<>	ō				40.30		00.01 1 2 1 2 1			-12.77
10.95 7.240 5.09 102.40 5.09 102.40 5.09 102.40 5.09 102.40 5.09 102.40 2.23 2.23 1107 7.81 17.52 2.23 2.23 11.25 11.25 2.23 2.24 2.21 1107 7.81 17.52 2.23 2.23 2.23 2.24 2.11.25 2.11.25 2.24 2.11.25 2.24 2.24 2.25 2.24 2.25 2.24 2.25 2.24 2.26 11.25 2.24 2.25 2.24 2.26 11.25 2.26 2.23 2.24 2.24 2.25 2.24 2.25 2.24 2.25 2.24 2.25 2.24 2.26 11.25 2.27 2.24 2.25 2.24 2.25 2.24 2.25 2.24 2.25 2.24 2.25 2.24 2.25 2.24 2.25 2.24 2.25 2.24 2.25 2.24 2.25 2.24 2.25 2.24 2.25 2.24 2.24	0.95 7.240 5.09 106.240 5.09 106.240 5.09 107.52 2.23 4.12 1.2209 8.58 17.99 10835 7.62 13.19 -11.25 0.90 14360 10.10 75.04 14005 9.85 42.32 -2.47 0.90 14360 10.10 75.04 14005 9.85 42.32 -2.47 0.64 10093 7.10 81.30 11734 8.25 67.13 16.26 0.64 10093 7.10 81.30 11734 8.25 67.13 16.26 ASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. ROYED BY CONDITIONS. 16.26 15.35 16.26	0.0			10.51	62.28	16550	5.03			
14.76 10865 7.64 22.72 11.25 13.19 -11.25 14.42 12209 8.58 17.99 10835 7.62 13.19 -11.25 10.90 14360 10.10 75.04 14005 9.85 42.32 -2.47 10.90 14360 10.10 75.04 14005 9.85 42.32 -2.47 10.69 12488 8.78 10.35 14406 10.13 9.06 15.35 10.64 10093 7.10 81.30 11734 8.25 67.13 16.26	4.76 10865 7.04 22.12 11.25 13.19 -11.25 4.42 12209 8.58 17.99 10835 7.62 13.19 -11.25 0.90 14360 10.10 7.504 10835 7.62 13.19 -11.25 0.90 14360 10.10 7.504 10055 9.85 42.32 -2.47 0.64 10093 7.10 81.30 11734 8.25 67.13 16.26 0.64 10093 7.10 81.30 11734 8.25 67.13 16.26 ASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. ROYED BY CONDITIONS. 16.26 16.26	õ			80.0	04.201	-	7 81			-22.88
14.42 12209 0.30 11.35 1.005 9.85 42.32 -2.47 10.90 14360 10.10 75.04 14005 9.85 42.32 -2.47 10.69 12488 8.78 10.35 14406 10.13 9.06 15.35 10.64 10093 7.10 81.30 11734 8.25 67.13 16.26	4.42 1.2209 0.300 11.530 1.005 9.85 42.32 -2.47 0.90 14360 10.10 75.04 14005 9.85 42.32 -2.47 0.69 12488 8.78 10.33 14406 10.13 9.06 15.35 0.64 10093 7.10 81.30 11734 8.25 67.13 16.26 ASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. ROYED BY CONDITIONS. ROYED BY CONDITIONS.	Ö			40. /	17 00		7.62		ī	-26.70
10.90 14360 10.10 7.10 8.78 10.13 9.06 15.35 10.69 12488 8.78 10.35 14406 10.13 9.06 15.35 10.69 12488 8.70 81.30 11734 8.25 67.13 16.26	0.90 14360 10.10 10.10 10.13 10.13 9.06 15.35 0.64 10093 7.10 81.30 11734 8.25 67.13 16.26 0.64 10093 7.10 81.30 11734 8.25 67.13 16.26 ASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. 8.25 67.13 16.26 ROYED BY CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS. ROYED BY CONDITIONS. 8.25 67.13 16.26	ö			00.0	75.04		38 5			-43.60
10.69 12488 8.78 10.35 14400 10.13 16.26 10.64 10093 7.10 81.30 11734 8.25 67.13 16.26	0.69 12488 8.78 10.35 14400 0.13 16.26 0.64 10093 7.10 81.30 11734 8.25 67.13 16.26 0.64 10093 7.10 81.30 11734 8.25 67.13 16.26 0.654 10093 7.10 81.30 11734 8.25 67.13 16.26 ASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. FRE AT AMBIENT CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS. 16.26 ROVED BY CONDITIONS. ROVED BY CONDITIONS. 10.16 10.16 10.16	õ			01.01						-12.55
10.64 10093 7.10 81.30 117.44 0.59 UT	0.64 10093 7.10 81.30 11.04 0.29 0.70 12.44 ASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. TERE AT AMBIENT CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS. ROVED BY CONDITIONS.	ō			8.78	CC.01		-			
	ULATIONS BASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. ILE PULLS WERE AT AMBIENT CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS. ST RAR DESTROYED BY CONDITIONS.	ō			7.10	81.30		0.2.0			

TENSILE PROPERTIES OF PLASTICS EXPOSED TO 32 ISO VG POLYPROPYLENE GLYCOL BUTYL MONO ETHER AND HFC-32 (R-32) [14 DAYS AT 150 DEG.C. (300 DEG.F.) AT 275-300 PSIA] TABLE F-3

				INTIAL TESTING	ŰZ		AFTI	AFTER AGING TESTING	STING	% CHANGE AFTEH AGING	FIEH AGING
ON	TYPE	CROSS - SECTIONAL A	TIONAL AREA				ΤĒ	9			
		in^2	mm^2	lbm/in ^ 2	kg/mm ^ 2	% ELONGATION	tbm/in ^ 2	kg/mm ^ 2	% ELONG.	TENSILE	% ELONG.
		0.017	10.65	11489	8.08	39.29	12703	8.93	16.73	10.57	-57.41
a ACFTAI		0.016	10.57	9754	6.86	22.60	N/A	N/A	N/A	N/A	N/A
1	C	0.017	10.76	8617	90.9	6.46	8129	5.72		-5.66	-
T	POI YVINYI DENE FLUORIDE	0 016	10.30	7412	5.21	105.39	6379			-13.94	8.33
A POI VPRC	JPYI FNF	0.016	10.62	5397	3.79	372.76	N/A	N/A	N/A	N/A	A/A
T	POI VARVI SI II FONF	0.017	10.77	12728	8.95	70.16	13337	9.38	34.65	4.78	50.62
1	POLYETHYLENE TEREPHTHALATE	0.017	10.85	20689	14.55	12.48	4985	3.51		1	-63.72
+	POI VPHENYI ENESUI FIDE	0.017	10.76	21262	14.95	10.24	23454	16.49	17.32	10.31	69.23
12 POI VTET	POLYTETRAFI LIOROETHYLENE	0.013	8.63	3879	2.73	262.68	3485	2.45	299.80	- 10.14	14.13
+-	POI VAMINE - IMINE	0.017	10.69	23510	16.53	17.17	25421	17.87	25.00	8.13	45.64
T		0.017	10.67	22990	16.16	20.16	21770	15.31	24.41	-5.31	21.09
-+		0.017	10.73	15750	11.07	64.33	15826	11.13		0.48	
16 MODIFIE		0.016	10.57	14082	06.6	46.38	14856	10.45	52.60	5.50	13.41
+	DOI VARVI ETHERKETONE	0.016	10.63	14946	10.51	62.28	15667	11.02	75.39	4.83	
-+	POLYRITTYI ENE TEREPHTHALATE	0.017	10.95	7240	5.09	162.40	N/A	N/A	N/A	N/A	N/A
+-	DE-DE	0.023	14.76	10865	7.64	22.72	9948		22.24	-8.44	-2.08
+-		0.722	14.42	12209	8.58	17.99	3912			-67.96	
+-	POLYABYI ETHERETHERKETONE)	0.017	10.90	14360	10.10	75.04	14969	10.52	66.54	4.24	
+	I O ID CRYSTAL POLYMER	0.017	10.69	12488	8.78	10.35	14478	10.18			
23 66 NYLOI	66 NYLON, POLYAMIDE	0.016	10.64	10093	7.10	81.30	8832	6.21	45.47	-12.50	-44.07
1					0111111			S NUMBER			
		ALL CALCULA	TIONS BASED	ON AN AVER		ALL CALCULATIONS BASED ON AN AVEHAGE OF 1WO 1ENSILE 1ES1S.			n u		
		ALL TENSILE I				ALL TENSILE PULLS WERE AT AMBIENT CONJITION AND WITHIN 24 INS AFTEN AGING CONSTITUTES					
		N/A = IESI B	N/A = IESI BAH DESI HUTEU BT CUNULIUNS		CNO.	and and the second s					

TENSILE PROPERTIES OF PLASTICS EXPOSED TO 32 ISO VG MINERAL OIL AND HCFC-123 (R-123) [14 DAYS AT 125 DEG.C. (257 DEG.F.) AT 275-300 PSIA.]

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			-	INTIAL TESTING	NG		AFTER AGIN	AFTER AGING TESTING		% CHANGE AFTER AGING	FTER AGING
Öz	TYPE	CROSS-SECTIONAL /	TIONAL AREA	TEN	TENSILE		TEN	TENSILE			
		in^2	mm^2	lbm/in ^ 2	kg/mm ^ 2	% ELONGATION	lbm/in ^ 2	kg/mm ^ 2	% ELONG.	TENSILE	% ELONG.
-	POLYPHTHALAMIDE	0.017	10.65	11489	8.08	39.29	13028	9.16	19.69	13.39	-49.90
m	ACETAL	0.016	10.57	9754	6.86	22.60	N/A	N/A	N/A	N/A	N/A
4	PHENOLIC	0.017	10.76	8617	6.06	6.46	10902	7.66	7.48	26.51	15.85
2	POLYVINYLIDENE FLUORIDE	0.016	10.30	7412	5.21	105.39	6462	4.54	138.98	-12.82	31.86
ß	POLYPROPYLENE	0.016	10.62	5397	3.79	372.76	3709	2.61	166.34	-31.28	-55.38
თ	POLYARYL SULFONE	0.017	10.77	12728	8.95	70.16	13050	9.17	36.02	2.52	-48.65
10	POLYETHYLENE TEREPHTHALA TE	0.017	10.85	20689	14.55	12.48	15809	11.11	11.42	-23.59	-8.52
=	POLYPHENYLENESULFIDE	0.017	10.76	21262	14.95	10.24	24225	17.03	10.04	13.94	-1.92
12	POLYTETRAFLUOROETHYLENE	0.013	8.63	3879	2.73	262.68	3328	2.34	312.99	-14.21	19.15
13	POLYAMIDE - IMIDE	0.017	10.69	23510	16.53	17.17	21587	15.18	16.93	-8.18	-1.38
4	POLYAMIDE - IMIDE	0.017	10.67	22990	16.16	20.16	21700	15.26	19.49	-5.61	-3.32
15	POLYETHERIMIDE	0.017	10.73	15750	11.07	64.33	15227	10.71	36.61	-3.32	-43.08
16	MODIFIED POLYETHERIMIDE	0.016	10.57	14082	9.90	46.38	14809	10.41	50.08	5.16	7.98
17	POLYARYLETHERKETONE	0.016	10.63	14946	10.51	62.28	15546	10.93	64.96	4.02	4.30
8	POLYBUTYLENE TEREPHTHALATE	0.017	10.95	7240	5.09	162.40	5425	3.81	34.84	-25.06	-78.55
19	POLYIMIDE - DF	0.023	14.76	10865	7.64	22.72	10263	7.22	17.72	-5.53	-22.01
20	POLYIMIDE - DF - ISO	0.022	14.42	12209	8.58	17.99	11216	7.89	15.55	-8.14	-13.57
21	POLY(ARYLETHERETHERKETONE)	0.017	10.90	14360	10.10	75.04	13742	9.66	47.44	-4.30	-36.78
22	LIQUID CRYSTAL POLYMER	0.017	10.69	12488	8.78	10.35	14564	10.24	10.24	16.62	-1.14
1	56 NYLON, POLYAMIDE	0.016	10.64	10093	7.10	81.30	10965	7.71	225.20	8.64	177.00
						TENOILE TEOTO		ST TUTUN 91		_	
			IONS BASED			ALL CALCULATIONS BASED ON AN AVERAGE OF TWO TENSILE TESTS. EACEPT NOT REMEMENTS S. ALL TENSILE PLITTS WEBE AT AMBIENT CONDITION AND WITHIN 24HBS AFTER AGING CONDITIONS	AFTER AGIN		n W		
		N/A - TEST BAR DESTROYED BY CONDITIONS	DESTROVE		IONS				į		

TENSILE PROPERTIES OF PLASTICS EXPOSED TO 32 ISO VG MINERAL OIL AND HCFC--123 (R--123) [14 DAYS AT 105 DEG.C. (221 DEG.F.) AT 275-300 PSIA] TABLE F--4b

NO TYPE TENSILE RELONG TOGIN 10.57 1480 30.41 -65.49 30.41 -65.40 30.41 -65.41 30.41 -65.41 30.41 -65.41 30.41 -65.41 30.41 -65.41 30.41 -65.41 30.41 -65.41 30.41 -65.41 30.41 -65.41 30.41 -65.41 30.41 -65.41 30.41 -65.41 30.41 -65.41 30.41 -65.41 30.41 -67.42 -67.10 -67.42 -67.10 -67.42 -67.10 -67.42 -67.10 -67.42 -67.10 -67.42 <th>-</th> <th></th> <th></th> <th></th> <th>INTIAL TESTING</th> <th>NG</th> <th></th> <th>AFTE</th> <th>AFTER AGING TESTING</th> <th>STING</th> <th>% CHANGE AFTER AGING</th> <th>FTER AGIN(</th>	-				INTIAL TESTING	NG		AFTE	AFTER AGING TESTING	STING	% CHANGE AFTER AGING	FTER AGIN(
In ^ 2 mm ^ 2 mm ^ 2 kg/mm ^ 2 kg/m ^ 2 kg/m ^ 2 kg/m ^ 2<	ç	TYPE	CROSS-SEC1	AREA	TEN	SILE		TEN	SILE			i
POLYPHITHALAMDE 0.017 1056 11489 6.06 39.26 14982 10.53 13.56 30.41 ACETAL 0.017 10.57 9754 6.06 22.60 9364 6.58 13.56 30.41 POLYNINULDENE FLUORIDE 0.017 10.57 6.16 2.260 9364 6.58 13.41 2006 POLYNINULDENE FLUORIDE 0.017 10.77 5.37 5.21 10.65 3.41 20.01 10.25 POLYNINULDENE FLIDENTIAL./TE 0.017 10.77 12.82 5.31 3.73 5.44 4.80 3.41 2.05 POLYNINULDENE FLEIDENTIAL./TE 0.017 10.77 12.82 12.46 13.36 5.31 1.05 POLYPROPYLENE 0.017 10.75 20689 14.55 12.46 13.84 3.41 2.12 1.018 POLYPROPYLENE 0.017 10.75 2.1862 14.48 1.11 4.82 1.11 1.11 1.11 1.11 2.23 1.11	į	1	in ^ 2	1	lbm/in ^ 2	kg/mm ^ 2	% ELONGATION	lbm/in ^ 2	kg/mm ^ 2		TENSILE	% ELONG.
ACTIVATIVACIMILE COLVENTINACIMICE COLVENTINACIMICE <thcolventinacimice< th=""> <thcolventinacimice< t<="" td=""><td></td><td></td><td>2100</td><td>10.65</td><td>11489</td><td>8.08</td><td>39.29</td><td>14982</td><td>10.53</td><td></td><td></td><td>-65.43</td></thcolventinacimice<></thcolventinacimice<>			2100	10.65	11489	8.08	39.29	14982	10.53			-65.43
ACETAL OUTO 107 107 6/01 <th< td=""><td>1</td><td>OLYPHINALAMIUE</td><td>400</td><td>10.01</td><td>0754</td><td>A A A</td><td>22 60</td><td>9364</td><td>6.58</td><td></td><td>-3.99</td><td>-15.5</td></th<>	1	OLYPHINALAMIUE	400	10.01	0754	A A A	22 60	9364	6.58		-3.99	-15.5
PHOLIC OUT UT UT <t< td=""><td>-1</td><td>CETAL</td><td>0.010</td><td>32.01</td><td>8617</td><td>90.9 9.00</td><td>6.46</td><td>6834</td><td>4.80</td><td></td><td>-20.69</td><td>-42.07</td></t<>	-1	CETAL	0.010	32.01	8617	90.9 9.00	6.46	6834	4.80		-20.69	-42.07
POLYNRUENE OOI 0.017 0.16 0.124 0.4452 10.16 6.31 -4.12 -10.24 -4.13 0.17 0.17 0.17 0.17 0.16 0.13 6.31 -6.31	-†	HENOLIC	0.01	10.01	7412	5.21	105.39	6241	4.39		-15.80	-34.25
POLYRTYLENE 0.017 10.77 12728 8.95 70.16 1442 10.16 42.32 1354 - POLYRTYLENE 0.017 10.77 12728 8.95 70.16 14452 10.16 42.32 1354 - - 8.6 - - 8.1 - 127.3 14.17 - <td>-†</td> <td></td> <td>0.010</td> <td>10.62</td> <td>5397</td> <td>3.79</td> <td>372.76</td> <td>4847</td> <td>3.41</td> <td>394.09</td> <td>-10.20</td> <td>5.72</td>	-†		0.010	10.62	5397	3.79	372.76	4847	3.41	394.09	-10.20	5.72
POLYEHYLENE Unit 10.86 20680 14.55 12.48 18997 13.36 9.45 -6.18 POLYEHYLENE 0.017 10.76 21262 14.95 10.24 290 9.45 -6.18 POLYEHYLENE 0.017 10.76 21352 14.95 10.24 290 9.45 -6.18 POLYFINE 0.017 10.67 21572 16.53 2717 2473 17.21 14.96 4.10 POLYMIDE - MIDE 0.017 10.67 22990 16.16 20.16 23180 16.30 20.08 0.83 -6.13 POLYETHERINDE 0.017 10.57 14082 9.90 4.33 16.24 3.38 -2.41 -1.43 3.33 -2.41	1		0.017	10.77	12728	8.95	70.16	14452	10.16	4		
POLYPHENKLENESULFDE 0017 10.76 21262 14.95 10.24 24263 17.06 8.86 14.12 - POLYTETRAFLUOROETHYLENE 0017 10.76 2.73 262.68 4.123 7.21 14.96 4.10 POLYAMIDE - IMIDE 0017 10.67 22930 16.53 17.21 17.21 17.31 14.36 6.33 15.3 16.30 20.08 0.83 POLYAMIDE - IMIDE 0017 10.67 22930 16.107 6.4.33 16.282 11.45 52.76 3.38 - 2.41 - 3.38 - 2.41 - 10.95 14.46 5.09 16.24 3.55.76 3.38 - 2.41 - 2.44 10.7 - 2.44 5.09 16.23 11.45 55.91 1.14 3.53 2.41 - 2.41 - 2.41 - 2.41 - 2.41 - 2.41 - 2.41 - 2.41 - 2.41	-	OLTANICSUCIONS	0.017	10.85	20689	14.55	12.48	18997	13.36			
POLYTETRAFLUOROETHYLENE 0013 863 3879 2.73 262.68 4123 2.90 303.15 6.31 POLYMIDE - IMIDE 0017 10.69 23510 16.53 17.17 24473 17.21 1496 410 POLYAMIDE - IMIDE 0017 10.67 23510 16.53 17.17 23180 17.21 1496 410 POLYAMIDE - IMIDE 0.017 10.77 15750 11.07 64.33 16288 17.21 1496 410 POLYAMIDE - IMIDE 0.017 10.77 15750 11.07 64.33 16288 17.14 39.37 12.49 POLYARICETHERIANDE 0.017 10.95 7240 5.09 46.38 16170 11.37 55.91 8.19 POLYARICETHERKETONE 0.017 10.95 7240 5.09 45.25 2.50 4.72 2.694 -2.41 POLYARIDE - DF - ISO 0.017 10.95 7.64 22.72 10.663 10.74 -2.44 -2.2.72	+-		0.017	10.76	21262	14.95	10.24	24263	17.06			
POLYAMIDE - IMDE 0017 10.66 23510 16.53 17.17 2473 17.21 14.96 4.10 POLYAMIDE - IMDE 0.017 10.67 22930 16.16 20.16 23180 16.30 20.08 0.83 POLYAMIDE - IMDE 0.017 10.67 10.73 15750 11.07 64.33 16.30 20.08 0.83 POLYAMIDE - IMDE 0.016 10.57 14946 5.09 16.16 2016 13.721 14.45 33.31 POLYARYLETHERKETONE 0.017 10.63 14946 5.09 162.40 3552 2.50 4.72 5.09 12.49 - POLYARYLETHERKETONE 0.017 10.56 14.46 5.09 162.40 3552 2.50 4.72 -50.94 - 241 - - - 241 - - - 241 - - - 241 - - 241 - - - 241 - 2 <	+		0.013	8.63	3879	2.73	262.68	4123	2.90		6.31	
POLYAMIDE - IMIDE 0017 10.67 22930 16.16 20.16 23130 16.30 20.08 0.83 POLYAMIDE - IMIDE 0.017 10.73 15750 11.07 64.33 16282 11.45 52.76 3.38 POLYARIVETHERIMDE 0.016 10.57 14082 9.90 46.33 16282 11.45 52.76 3.38 POLYARYLETHERKETONE 0.017 10.57 14046 5.09 16.240 11.37 55.91 8.19 - POLYARYLETHERKETONE 0.017 10.63 14946 15.05 16.20 4.72 50.34 - 24.1 POLYBUTYLENE TEREPHTHALATE 0.0017 10.63 1446 17.64 22.72 16603 7.45 17.13 -2.41 POLYMIDE - DF 0.017 10.90 14360 10.10 75.04 14463 10.17 60.24 0.72 POLYMIDE - DF 0.016 10.69 12488 8.78 17.09 75.23 5.00 4.72	+		0.017	10.69	23510	16.53	17.17	24473	17.21		4.10	1
POLYMMILE 0017 10.73 15750 11.07 64.33 16282 11.45 52.76 338 - MODIFIED POLYETHERIMDE 0.016 10.57 14082 9.90 46.38 15841 11.14 55.91 8.19 MODIFIED POLYETHERIMDE 0.017 10.57 14082 9.90 46.38 15841 11.14 39.37 12.49 POLYBUTYLENE TEREPHTHALATE 0.017 10.95 7240 5.09 162.28 16170 11.37 55.91 8.19 POLYBUTYLENE TEREPHTHALATE 0.017 10.95 7240 5.09 162.40 3552 2.50 4.72 -50.94 POLYBUTYLENE TEREPHTHALATE 0.022 14.42 12209 8.56 162.40 3552 2.50 4.72 -50.94 - POLYIMIDE – DF – ISO 0.017 10.90 14.360 10.10 7.45 17.13 -2.41 POLYIMIDE – DF – ISO 0.016 10.663 12.486 8.78 10.35 5.29 38.19 <td>+-</td> <td></td> <td>0.017</td> <td>10.67</td> <td>22990</td> <td>16.16</td> <td>20.16</td> <td>23180</td> <td>16.30</td> <td></td> <td>0.83</td> <td>0</td>	+-		0.017	10.67	22990	16.16	20.16	23180	16.30		0.83	0
MODIFIED POLYETHERINDE 0.016 10.57 14082 9.90 46.38 15841 11.14 39.37 12.49 - POLYARYLETHERKETONE 0.016 10.63 14946 10.51 62.28 16170 11.37 55.91 8.19 POLYARYLETHERKETONE 0.017 10.95 7240 5.09 162.28 16170 11.37 55.91 8.19 POLYARYLETHERKETONE 0.017 10.95 7240 5.09 162.28 16170 11.37 55.91 8.19 POLYMIDE – DF 0.022 14.42 12209 8.58 17.19 35.22 17.13 -2.41 POLYIMIDE – DF – ISO 0.017 10.90 14.46 12.209 8.58 17.33 5.29 10.04 -38.38 POLYIMIDE – DF – ISO 0.017 10.90 12.488 8.78 10.17 60.24 0.72 -2.41 POLYIMIDE – DF – ISO 0.016 10.64 10.863 7.45 17.13 0.72 -2.03 P	+		0.017	10.73	15750	11.07	64.33	16282	11.45		3.38	-17.9
MOUTIFIC FOLTETIME 0.016 10.63 14946 10.51 62.28 16170 11.37 55.91 8.19 8.19 8.19 5.09 162.40 3552 2.50 4.72 50.94 8.19	+		0.016	10.57	14082	06.6	46.38	15841	11.14	39.37	12.49	- 15.1
POLYNINE Teach 5.09 162.40 3552 2.50 4.72 -50.94 - POLYNINE 0.017 10.95 7.240 5.09 162.40 3552 2.50 4.72 -50.94 - POLYNINE 0.023 14.76 10865 7.64 22.72 10603 7.45 17.13 -2.41 - POLYNINE 0.022 14.42 12209 8.58 17.99 7.523 5.29 10.04 -38.38 - -2.41 - - -2.41 - - -38.38 - - -2.41 - - -38.38 - - - -2.41 - - -2.41 - - - - -2.41 - - - - -2.41 - - -2.41 - - - - -2.41 - - -2.41 - - - - -2.41 - - - - -	+		0.016	10.63	14946	10.51	62.28	16170	11.37	G	8.19	
POLIVIMIDE – DF 0.023 14.76 10865 7.64 22.72 10603 7.45 17.13 -2.41 - POLYIMIDE – DF 0.022 14.42 12209 8.58 17.99 7.523 5.29 10.04 -38.38 - - 38.38 - - 38.38 - - 38.38 - - 38.38 - - 38.38 - - 38.38 - - 38.38 - - 38.38 - - 38.38 - 0.72 - 38.38 - 0.72 - - 38.38 - 0.72 - 38.38 - 0.72 - - 38.38 - 0.72 - 0.72 - 0.72 - 0.72 - 0.72 - 0.72 - 0.72 - 0.72 - 0.72 - 0.72 - 0.72 - 0.72 - 0.72 0.736 0.72 0.73	-+-		0.017	10.95	7240	5.09	162.40	3552	2.50		- 50.94	-97.(
POLYIMIDE - DF -ISO 0.022 14.42 1.2209 8.58 17.99 75.23 5.29 10.04 -38.38 - POLYIMIDE - DF -ISO 0.017 10.90 14360 10.10 75.04 14463 10.17 60.24 0.72 - - 38.38 - - 38.38 - - 38.38 - - 38.38 - - 38.38 - 0.72 - 38.38 - 0.72 - - 38.38 - 0.72 - - 38.38 - 0.72 - 0.72 - - 38.19 12.06 - 12.06 - 12.06 - 12.06 - 12.06 - 12.06 - 12.06 - 12.06 - 12.06 - 12.06 - 12.06 - 12.06 - 12.06 - 12.06 - 12.06 - 12.06 - 12.06 - 12.06 - 12.06 </td <td>-†-</td> <td></td> <td>0.023</td> <td>14.76</td> <td>10865</td> <td>7.64</td> <td>22.72</td> <td>10603</td> <td>7.45</td> <td></td> <td>-2.41</td> <td>-24.6</td>	-†-		0.023	14.76	10865	7.64	22.72	10603	7.45		-2.41	-24.6
POLY(ARYLETHERETHERKETONE) 0.017 10.90 14360 10.10 75.04 1463 10.17 60.24 0.72 - POLY(ARYLETHERETHERKETONE) 0.017 10.69 12486 8.78 10.35 15033 10.17 60.24 0.72 - POLY(ARYLETHERETHERETONE) 0.016 10.69 12486 8.78 10.35 15033 10.57 9.45 20.38 LIQUID CRYSTAL POLYMER 0.016 10.64 10093 7.10 81.30 11310 7.95 38.19 12.06 - 66 NYLON, POLYAMIDE 0.016 10.64 10093 7.10 81.30 11310 7.95 38.19 12.06 - ALL CALCULATIONS BASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. ALL TENSILE PULLS WERE AT AMBIENT CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS. 12.06 - ALL TENSILE PULLS WERE AT AMBIENT CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS. 5. N/A = TEST BAR DESTROYED BY CONDITION AND 11310 7.95 38.19 12.06 -	-+-		0000	14.42	12209	8.58	17.99	7523	5.29		-38.38	
FOLITION LETIME 0.017 10.69 12488 8.78 10.35 15033 10.57 9.45 20.38 LIQUID CRYSTAL POLYMER 0.016 10.64 10.69 12.486 8.78 10.35 15033 10.57 9.45 20.38 66 NYLON, POLYAMIDE 0.016 10.64 10093 7.10 81.30 11310 7.95 38.19 12.06 - ALL CALCULATIONS BASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. ALL TENSILE PULLS WERE AT AMBIENT CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS. 5. N/A = TEST BAR DESTROYED BY CONDITION S. 12.06 - - 12.06 - - 10.51 % MICH IS 5. - 12.06 - - - 12.06 - - 10.51 % MICH IS 5. - - 12.06 - - - 12.06 - - - 12.06 - - - - - - 12.06 - - - - - - - - - - <t< td=""><td></td><td></td><td>0.017</td><td>10.90</td><td>14360</td><td>10.10</td><td>75.04</td><td>14463</td><td>10.17</td><td></td><td>0.72</td><td>1</td></t<>			0.017	10.90	14360	10.10	75.04	14463	10.17		0.72	1
Isolution Isolution 1010 1010 7.10 81.30 11310 7.95 38.19 12.06 - 66 NYLON, POLYAMIDE 0.016 10.64 10.093 7.10 81.30 11310 7.95 38.19 12.06 - ALL CALCULATIONS BASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. ALL TENSILE PULLS WERE AT AMBIENT CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS. N/A = TEST BAR DESTROYED BY CONDITIONS.	-+-	UCI ON TELITETET IN THE	017	10.69	12488	8.78	10.35	15033	10.57	9.45		
ALL CALCULATIONS B ALL TENSILE PULLS W N/A = TFST BARDEST		6 NYLON, POLYAMIDE	0.016	10.64	10093	7.10	81.30	11310	7.95		12.06	
	1		ALL CALCULA ALL TENSILE F N/A - TEST B	TIONS BASED	ON AN AVER T AMBIENT C D BY CONDIT	AGE OF TWO CONDITION AN	TENSILE TESTS. D WITHIN 24HPS	EXCEPT NO. AFTER AGIN	16 WHICH IS G CONDITIO	ÅS. NS.		

TENSILE PROPERTIES OF PLASTICS EXPOSED TO 32 ISO VG ALKYLBENZENE AND HCFC-124 (R-124) [14 DAYS AT 150 DEG.C. (300 DEG.F.) AT 275-300 PSIA] TABLE F-5

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				INTIAL TESTING	NG		AFTEF	AFTER AGING TESTING	TING	% CHANGE AFTER AGING	FTER AGING
Q	TYPF	CROSS-SECTIONAL	AREA	TENSILE	SILE		TENSILE	ILE			
	1	in^2	1.1	lbm/in ^ 2	kg/mm ^ 2	% ELONGATION	lbm/in ^ 2	kg/mm^2	% ELONG.	TENSILE	% ELONG.
•		0.017	10.65	11489	8.08	39.29	14988	10.54	13.78	30.46	-64.93
- e		0.016	10.57	9754	6.86	22.60	10165	7.15	22.64	4.22	
• •		0.017	10.76	8617	6.06	6.46	7281	5.12	3.54	-15.51	-45.12
t 4		0.016	10.30	7412	5.21	105.39	6736	4.74	83.07	-9.11	-21.18
n		0.016	10.62	5397	3.79	372.76	4945	3.48	183.07	-8.37	
0		0.017	10.77	12728	8.95	70.16	14375	10.11	31.10	12.93	
n Ç	POLIVETHYLENE TEREPHTHAL ATE		10.85	20689	14.55	12.48	20560	14.46	10.24		
2			10.76	21262	14.95	10.24	23816	16.74	9.45		
= :	POLITHENILENESCELIDE	013	8.63	3879	273	2	3521	2.48	175.20	-9.23	
-		1017	10.69	23510	16 53	1717	26187	18.41	16.34	11.39	-4.82
		0.017	10.67	22990	16 16		21785	15.32	17.91	-5.24	
4		0017	1073	15750	11 07	64 33	16891	11 88	40.94		-36.35
2		0016	10.57	14082	06 6	46.38	15350	10 79	38.19	9.00	-17.66
		0016	10.63	14946	10.51	62.28	16673	11 72	56.89	11.55	
	POLYANTE INCINCTON		10.95	7240	5 03	162.40	12814	9.01	11.81	76.99	
	POLYMINE DE	0.023	14 76	10865	7.64	22.72	10372	7.29	18.70	-4.53	-17.68
		0.022	14.42	12209	8.58	17.99	10987	7.72	13.58	ī	-24.51
3 5	POLYARYI ETHERETHERKETONE)		10.90	14360	10.10	75.04	14663	10.31	39.57	2.11	
36		0.017	10.69	12488	8.78		14647	10.30	9.25	17.29	
33	66 NYLON, POLYAMIDE	0.016	10.64	10093	7.10	81.30	12389	8.71	46.26	22.75	-43.10
		ALL CALCULATIONS		ON AN AVER		BASED ON AN AVERAGE OF 1WO 1ENSILE LESTS. EXCEPT NO.16 WITICH IS 3. UNDER AT AMPLEAT CONDITION AND WITHIN 24 HDS AFTER AGING CONDITIONS	EXCEPT NO.1		. 4		
		ALL TENSILE PULLS WERE AT AMBIENT CONUT N/A - TEST BAB DESTROYED BY CONDITIONS	OLLS WEHE A						ž		

TENSILE PROPERTIES OF PLASTICS EXPOSED TO 32 ISO VG BRANCHED ACID POLYOL ESTER AND HFC-125 (R-125) [14 DAYS AT 150 DEG.C. (300 DEG.F.) AT 275-300 PSIA] TABLE F-6

in all data a difference

NO TYPE ATTAL TESTING ATTAL TESTING ATTAL TESTING ATTAL TESTING ACCURATER AGING TESTING ACCURATER AG						•					
TYPE CROSS-SECTIONAL AREA TENSILE TENSILE TENSILE TENSILE TENSILE TENSILE RENGL % ELONG TENSILE RENGL % ELONG TENSILE TENSILE TENSILE % ELONG TenSILE TenSILE				NTIAL TESTI	DNG		AFTE	R AGING TE	STING	% CHANGE A	FTER AGING
Inr 2 mm 2 bm/m 2 % clumm 2 % clum 2 % clum 2 % clum 2 <td></td> <td>CROSS-SEC</td> <td>REA</td> <td>TEN</td> <td>SILE</td> <td></td> <td>TEN</td> <td>SILE</td> <td></td> <td>TENSILE</td> <td></td>		CROSS-SEC	REA	TEN	SILE		TEN	SILE		TENSILE	
OLYPHTHLAMIDE 0017 10.65 11489 8.08 39.29 15156 10.65 13.56 32.29 ACETAL 0016 10.57 754 6.86 26.60 3819 6.69 13.56 32.9 PUNNULC 0016 10.57 5.71 10.63 8616 5.80 16.30 13.76 PUNNULC 0017 10.77 8177 5.71 105.39 8650 4.82 106.30 13.76 POLYNARY SULFORE 0017 10.77 8177 31.79 37.21 6.665 16.30 13.36 POLYNARY SULFORE 0017 10.75 21689 14.55 10.248 16.96 18.31 13.36 POLYNARY SULFORE 0017 10.75 21682 14.55 10.248 18.31 13.32 POLYNARDE -MIDE 0017 10.57 14.95 10.248 8.46 13.24 POLYNARDE -MIDE 0017 10.57 14.35 10.248 18.33 13.24		in ^ 2	mm^2	lbm/in ^ 2	kg/mm ^ 2	% ELONGATION	lbm/in ~ 2	kg/mm 2	% ELUNG.		
POLYPHTHALMIDE 0017 10.65 11.486 6.06 6.36 9.13 7 1 ACETAL 0016 10.75 9617 6.06 6.46 9619 6.90 4.33 0.07 13.17 ACETAL 0016 10.76 11.485 5.27 6.905 6.48 106.30 -7.36 13.17 POLYNIX/LICENE FLUORIDE 0017 10.77 12732 8.955 70.16 14.508 10.220 18.11 13.399 -18.24 -18					000	00.00	15108	10.69		32.29	
ACETAL 0016 1057 9754 6.86 2260 9803 6.89 0.630 13.78 15 PEINOLIC 0017 10.77 712 521 10539 689 689 16.30 13.78 15 POLYMPROPILENE 0017 10.77 1712 521 10539 689 482 10639 13.39 - POLYMPROPILENE 0017 10.77 12728 8950 485 13.39 - 13.32 13.31		0.017	10.65	11489	Ø.UØ	23.60	0000			0.67	
PHENOLIC 0017 10.76 6617 6.06 6.45 9800 4.82 10.00 10.75 10.75 10.75 10.75 10.75 10.75 10.75 10.75 10.75 10.75 10.75 10.75 10.75 10.75 10.75 10.75 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.77 10.75 10.75 10.75 10.74 10.75 10.74 10.75 10.74 10.75 10.74 10.75 10.74 10.75 10.74 10.75 10.74 10.75 10.74 10.75 10.74 10.75 10.74 10.75 10.74 10.75 11.07 10.74 10.76 11.07 10.74 10.75 11.07 10.74 10	\uparrow	0.016	-	9754	6.86	22.60	2010		•	13.78	-
Pricyningene 0016 1030 7412 521 105.39 6850 322 103.30 1339 - 103.30 1339 - 103.30 1339 - 103.30 1339 - 103.30 1339 - 1339 1339 1339 1339 1339 1339 1339 1339 1339 1339 1339 1339 1339 <t< td=""><td>T</td><td>0.017</td><td>-</td><td>8617</td><td>6.06</td><td>6.46</td><td>CUBE</td><td>60.0</td><td></td><td>7 50</td><td></td></t<>	T	0.017	-	8617	6.06	6.46	CUBE	60.0		7 50	
POLYNRUCENE Cond 10.62 5337 372.16 4686 329 19319	+	0.016		7412	5.21	105.39	6850	4.82	-		
POLYPENCINLENE 0017 1077 12728 8.95 70.16 14508 10.20 18.11 11.339 13.39 POLYPENCINLENE 0017 10.77 12728 8.95 70.16 14508 16.92 18.46 -18.24 - POLYPENVLENE 0017 10.77 12789 8.63 877 2 8.85 13.297 13.39 <	+	0.016	-	5397	3.79	372.76	4686	3.29	-	- 10.1	
POLYARYL SULFUCNE 0017 10.85 20689 14.55 12.48 16916 11.89 8.46 -18.24 POLYFHYLENE 0017 10.76 21562 14.55 10.24 24659 16.92 POLYFHYLENESULFDE 0017 10.76 21562 14.55 10.24 2465 16.92 POLYFERRELUOROETHYLENE 0.017 10.667 22990 16.16 27.12 249.61 132.97 POLYTETRAFLUOROETHYLENE 0.017 10.677 16.53 20.16 217.28 15.27 18.31 21.08 POLYTETRAFLUOROETHYLENE 0.017 10.677 16.53 20.16 217.28 249.61 132.97 POLYTERRELIMIDE 0.017 10.677 14.96 10.51 24.061 13.31 21.08 POLYTERRELIMIDE 0.017 10.57 14.96 10.51 24.02 4.33 14.36 14.33 24.92 8.04 4.95 10.04 2.551 10.94 2.51 10.95 24.92 8.04	-†	0.010	10 77	12728	8.95	70.16	14508	10.20		13.90	
POLVEITIMENT POLVEITIMENT 0.017 10.76 21262 14.95 10.24 24659 17.48 8.86 16-92 POLVETIMENESULFICE 0.017 10.76 21262 14.95 2.73 262.66 9036 6.35 249.61 132.97 POLVETIARENESULFICE 0.017 10.76 2.8510 16.53 17.17 249.65 133.297 21.08 POLVETIARELUNCE 0.017 10.65 23510 16.53 11.07 64.33 16.32 24.06 133.27 21.08 POLVETHERINDE 0.017 10.57 14.082 9.90 46.33 16.432 11.55 24.02 4.33 24.95 10.04 -5.97 10.04 -5.91 10.04 -5.91 10.04 -5.91 10.04 -5.91 10.04 -5.91 10.04 -5.91 10.04 -5.91 10.04 -5.91 10.04 -5.91 10.04 -5.91 10.04 -5.91 10.04 -5.91 10.04 -5.91 10.04 <t< td=""><td></td><td></td><td>10.85</td><td>20689</td><td>14.55</td><td>12.48</td><td>16916</td><td></td><td></td><td></td><td>-32.10</td></t<>			10.85	20689	14.55	12.48	16916				-32.10
POLYPHENYLENESULFIDE 0.017 0.016 0.017 0.017 0.016 0.017 0.017 0.016 0.017 0.017 0.016 0.017 0.016 0.017 0.016 0.021 0.016 0.021 0.016 0.021 0.016 0.021 0.016 0.021 0.016 0.021 0.016 0.021 0.021 0.021 0.021 0.021 0.021 0.022 0.022 0.022 0.022 </td <td>-</td> <td></td> <td>10.01</td> <td>01 262</td> <td>14 95</td> <td>10.24</td> <td>24859</td> <td></td> <td></td> <td></td> <td></td>	-		10.01	01 262	14 95	10.24	24859				
POLYTETRAFLUOROETHYLENE 0.013 0.003 0.017 10.65 23510 16.53 17.17 28466 20.01 18.31 21.08 POLYAMIDE – IMIDE 0.017 10.67 22990 16.16 21723 15.27 18.31 -551 POLYAMIDE – IMIDE 0.017 10.67 2590 16.16 21723 15.27 18.31 -551 POLYETHERIENDE 0.017 10.57 15.750 11.07 64.33 16422 17.22 13.31 -551 POLYETHERIED POLYETHERKETONE 0.017 10.65 14.082 5.09 16.240 6651 4.68 7.09 -8.13 POLVENDE 0.017 10.63 14.42 12.269 8.56 7.09 10.36 7.09 -8.13 -15.80 7.09 -9.13 -15.80 -17.32 1.08 -5.53 10.04 - -5.64 10.65 7.09 -8.13 -15.80 -17.81 -17.32 1.0.68 -5.53 5.4.92 8.04 - <td< td=""><td>_</td><td>0.01</td><td>-</td><td>3879</td><td>2 73</td><td>262.68</td><td>9036</td><td></td><td></td><td>132.97</td><td>1</td></td<>	_	0.01	-	3879	2 73	262.68	9036			132.97	1
POLYAMIDE - IMIDE 0.017 10.03 22930 16.16 20.16 21723 15.27 18.31 -5.51 POLYAMIDE - IMIDE 0.017 10.67 22930 11.07 64.33 16.432 11.55 24.02 4.33 POLYETHERIMIDE 0.017 10.57 14.082 9.90 46.38 16.432 11.55 24.02 4.33 MODIFIED POLYETHERIMIDE 0.017 10.57 14.082 9.90 46.38 15.435 10.35 24.92 8.04 - POLYARYLETHERKETONE 0.017 10.53 14.76 10.95 7.64 22.72 10.982 7.09 8.13 -5.51 10.08 - -5.91 10.08 - -5.91 10.08 -		0.013	-	23510		17.17	28466			21.08	
POLYAMDE - IMIDE 0.017 10.07 15750 11.07 64.33 16.432 11.55 24.02 4.33		/10.0	60.01	01007		20.16		15.27	-	-5.51	
POLYETHERIMIDE 0.017 10.73 19.73 19.73 19.73 19.73 19.73 19.74 10.64 10.64 10.64 10.64 10.64 10.64 10.64 10.64 10.64 10.64 10.64 10.65 14.082 9.90 46.38 154.95 10.89 26.97 10.04 - POLYBUTYLENE TEREPHTHALATE 0.017 10.65 7.4946 5.09 165.14 65.17 2.72 17.32 17.32 1.08 POLYBUTYLENE TEREPHTHALATE 0.017 10.95 7.44 1.0865 7.64 151.54 1.0.65 7.23 1.0.8 - - 1.0.8 - - 5.53 1.0.8 - 5.53 1.0.8 - - 1.0.8 - - 1.0.8 - - 1.0.8 - - 1.0.8 - - 1.0.8 - 1.0.8 - 1.0.8 - 1.0.8 - 1.0.8 - 1.0.8 - 1.0.8 - 1.0.	1-	0.017	10.01	2230	10.01	64.33					
MODIFIED POLYETHERIMIDE 0.016 10.57 14082 9.50 40.36 161.47 11.35 54.92 8.04 POLYARYLETHERKETONE 0.016 10.57 14946 10.51 6.5.9 161.47 11.35 54.92 8.04 POLYRUTYLENE TEREPHTHALATE 0.017 10.63 14.946 10.51 6.5.09 165.1 4.68 7.09 -8.13 - POLYBUTYLENE TEREPHTHALATE 0.017 10.95 7.442 12209 8.58 17.29 17.32 11.08 POLYIMIDE – DF 0.017 10.90 14360 8.58 17.99 10279 7.23 11.81 -1580 POLYIMIDE – DF – ISO 0.017 10.69 12488 8.78 17.99 10279 17.81 1.871 POLYIMIDE – DF – ISO 0.017 10.69 12488 8.78 10.65 7.28 18.71 LIQUID CRYSTAL POLYMER 0.016 10.69 12488 8.78 34.45 19.02 18.71	1-	0.017		nc/cl	10.11	00'L0	15405			10.04	
POLVARYLETHERKETONE 0.016 10.63 14946 10.51 62.28 1614/ 1.0.35 7.09 -8.13 - POLVRUYLENE TEREPHTHALATE 0.017 10.95 7240 5.09 162.40 6651 4.68 7.09 -8.13 - POLVBUTYLENE TEREPHTHALATE 0.017 10.95 7240 5.09 162.40 6651 4.68 7.03 -8.13 - POLVBUTYLENE TEREPHTHALATE 0.017 10.95 14.42 12209 8.58 17.29 17.23 11.81 -155.80 -1685 5.53 5.55 5.53 5.56 10.045 5.56	+	0.016	-	14082	08.9	40.04	85	1 25			
POLYINDE – DF 0.017 10.95 7240 5.09 102.40 7.72 17.32 1.08 - POLYIMIDE – DF 0.022 14.76 10865 7.64 22.72 10982 7.72 17.32 1.08 - POLYIMIDE – DF 0.022 14.42 12209 8.58 17.99 7.23 11.81 -15.80 POLYIMIDE – DF 0.017 10.90 14360 10.10 7.5.04 15154 10.65 7.283 5.53 POLYIMIDE – DF 0.017 10.90 14360 10.10 7.2.04 15242 9.65 18.71 LIQUID CRYSTAL POLYMER 0.017 10.69 12488 8.78 10.30 12013 8.45 34.45 19.02 LIQUID CRYSTAL POLYMER 0.016 10.663 12488 8.78 10.30 12013 8.45 19.02 ALLOUID CRYSTAL POLYMER 0.016 10.663 10.063 7.10 81.30 12013 8.455 19.02 66 0	-+	0.016	10.63	14946	10.51	62.28	1014/	4.68			
POLYIMIDE – DF 0.023 14.76 10865 7.64 2.2.72 10302 7.23 11.81 -15.80 POLYIMIDE – DF – ISO 0.022 14.42 12209 8.58 17.99 10.279 7.23 11.81 -15.80 POLYIMIDE – DF – ISO 0.017 10.90 14360 12010 75.04 15154 10.65 7.283 5.53 POLYIMIDE – DF – ISO 0.017 10.90 14360 10.10 75.04 15154 10.65 7.283 5.53 POLYIARYLETHERETHERETONE 0.017 10.69 12488 8.78 10.35 14825 9.65 18.71 LIQUID CRYSTAL POLYMER 0.016 10.69 12488 8.78 10.35 14825 9.65 19.02 ALL CALCULATIONS BASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. 14.45 19.02 ALL TENSILE PULLS WERE AT AMBIENT CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS. N/A = TEST BAR DESTROYED BY CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS. 19.02	+		10.95	7240	80.0	04.201	Ť				
POLYIMIDE – DF – ISO 0.022 14.42 12209 8.38 17.93 10.65 72.83 5.53 POLYIMIDE – DF – ISO 0.017 10.90 14360 10.10 75.04 15154 10.65 72.83 5.53 POLYIARYLETHERETHERKETONE) 0.017 10.90 14360 10.10 75.04 15154 10.65 72.83 5.53 LIQUID CRYSTAL POLYMER 0.017 10.69 12488 8.78 10.35 14825 9.65 18.71 LIQUID CRYSTAL POLYMER 0.016 10.69 12488 8.78 10.35 12013 8.45 34.45 19.02 66 NYLON, POLYAMIDE 0.016 10.664 10063 7.10 81.30 12013 8.45 19.02 ALL CALCULATIONS BASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. ALL TENSILE PULLS WERE AT AMBIENT CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS. N/A = TEST BAR DESTROYED BY CONDITIONS.			14.76	10865	7.64	71.77	-			-	
POLY(ARYLETHERETHERKETONE) 0.017 10.90 14360 10.10 7.04 10.42 9.65 18.71 LIQUID CRYSTAL POLYMER 0.017 10.69 12488 8.78 10.35 14825 10.42 9.65 18.71 LIQUID CRYSTAL POLYMER 0.016 10.69 12488 8.78 10.35 14825 10.42 9.65 18.71 66 NYLON, POLYAMIDE 0.016 10.69 10093 7.10 81.30 12013 8.45 34.45 19.02 66 NYLON, POLYAMIDE 0.016 10.664 10063 7.10 81.30 12013 8.45 34.45 19.02 ALL CALCULATIONS BASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. ALL TENSILE PULLS WERE AT AMBIENT CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS. N/A = TEST BAR DESTROYED BY CONDITIONS.	+-	0.022	14.42	12209	8C.8	50.7-	1001				
LIQUID CRYSTAL POLYMER 0.017 10.69 12488 8.78 10.35 14825 10.45 34.45 19.02 LIQUID CRYSTAL POLYMER 0.016 10.64 10093 7.10 81.30 12013 8.45 34.45 19.02 66 NYLON, POLYAMIDE 0.016 10.64 10093 7.10 81.30 12013 8.45 34.45 19.02 ALL CALCULATIONS BASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. ALL TENSILE PULLS WERE AT AMBIENT CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS. N/A = TEST BAR DESTROYED BY CONDITIONS.	+		10.90	14360	10.10	40.07					1
LINE 0.016 10.64 10093 7.10 81.30 120131 0.43 0.43 66 NYLON, POLYAMIDE 0.016 10.64 10093 7.10 81.30 120131 0.43 0.43 ALL CALCULATIONS BASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. ALL CALCULATIONS BASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. ALL TENSILE PULLS WERE AT AMBIENT CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS. N/A = TEST BAR DESTROYED BY CONDITIONS.	+		10.69	12488	8.78	10.35					
	+-	0.016	-	1 0093	7.10	81.30	12013	0	-		
ALL CALCULATIONS BASED ON AN AVENAL AND WITHIN 24HRS AFTER AGING CONDITIONS. ALL TENSILE PULLS WERE AT AMBIENT CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS. N/A = TEST BAR DESTROYED BY CONDITIONS.	1			ON AN AVE		TENSII E TESTS.	EXCEPT NO.	16 WHICH IS	5.		
N/A = TEST BAR DESTROYED BY CONDITIONS.		ALL CALCULA	PULLS WERE	AT AMBIENT	CONDITION AI	D WITHIN 24HRS	AFTER AGIN	IG CONDITIC	NS.		
		N/A = TEST B	IAR DESTROYI	ED BY CONU	I IONS.					•,	

TENSILE PROPERTIES OF PLASTICS EXPOSED TO 32 ISO VG POLYPROPYLENE GLYCOL BUTYL MONO ETHER AND HFC-125 (R-125) [14 DAYS AT 150 DEG.C. (300 DEG.F.) AT 275-300 PSIA] TARI F F-7

-				INTIAL TESTING	50		AFTE	AFTER AGING TESTING		% CHANGE AFTER AGING	FTER AGING
Q	TYPE	CROSS SECTIONAL	AREA	TENSILE	SILE		TENSILE				
į	1	in^2	mm^2	lbm/in ^ 2	kg/mm ^ 2	% ELONGATION	lbm/in ^ 2	kg/mm^2	% ELONG.	TENSILE	% ELONG.
		0.017	10.65	11489	8.08	39.29	14539	10.22	14.76	26.55	-62.42
+	PULYPHIMALAMIUE	0.016	10.57	9754	6.86	22.60	8972	6.31	24.02	-8.01	6.27
-†	ACEIAL	0.010	10.01	8617	6.06		9798	6.89	24.02	13.71	271.95
-		0.016	10.30	7412	5.21	105.39	6989	4.83	90.75	-7.32	-13.90
- م		0.016	10.62	5397	3.79		4824	3.39	2	-10.61	
+	POLITINOT ILLING	0.017	10.77	12728	8.95	70.16	14321	10.07		12.52	
1	POLITINIE SOCI ONE POLIVETHYLENE TEREPHTHALATE	0.017	10.85	20689	14.55	12.48	20673	14.53	-	-0.08	
+		0.017	10.76	21262	14.95	10.24	26219	-		23.32	
+		0.013	8.63	3879	2.73	262.68	3385		~	-12.73	
4 9		0.017	10.69	23510	16.53	17.17	22822			-2.92	-16.28
-+-		1012	10.67	22990	16.16	20.16	21945			-4.54	
# 4		0.017	10.73	15750	11.07	64.33	16147	11.35		2.52	
-		0.016	10.57	14082	06.6	46.38	15287	10.75	37.80	8.56	
	MOUIFIEU FOLTETAENIMIUL	0.016	10.63	14946	10.51	62.28	16254	11.43	4	8.75	
+	PULTANTLE I NEAKE I UNE	0.017	10.95	7240	5.09	162.40	6962	5.60	9.65	10.07	
-+	PULYBUITLENE IEREFRINALIS	0.023	14 76	10865	7.64	22.72	11126	7.82	18.50	2.41	-18.54
-+-		0.020	14 42	12209	8.58		11152	7.84	13.58	-8.65	-24.51
	POLYIMIUE - UF - 150 BOI V A BVI ETHERETHERKETONE)	0.017	10.90	14360	10.10	75.04	14807	10.41	e		
	TOLIO CAVILLI ILLI POI VMER	0.017	10.69	12488	8.78	10.35	14067	68.6			
38	66 NYLON. POLYAMIDE	0.016	10.64	10093	7.10	81.30	12067	8.48	36.42	19.56	-55.21
1			LIONS RASED	ON AN AVER	AGE OF TWC	ASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5.	EXCEPT NO.	16 WHICH IS	5.		
		ALL TENSILE PULLS W	ULLS WERE A	VT AMBIENT C	SONDITION A	FRE AT AMBIENT CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS	AFTER AGIN	G CONDITIO	NS.		
		N/A = TEST BARDEST	AR DESTROYE	ROYED BY CONDITIONS	TONS.						
	-										

TENSILE PROPERTIES OF PLASTICS EXPOSED TO 32 ISO VG MODIFIED POLYGLYCOL AND HFC-125 (R-125) [14 DAYS AT 150 DEG.C. (300 DEG.F.) AT 275-300 PSIA] TABLE F-8

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E TENSILE TENSILE KELONGATION Ibm/in ~ 2 kg/mm ~ 2 KELONG. TENSILE KELONG. glimm ~ 2 % ELONGATION Ibm/in ~ 2 kg/mm ~ 2 % ELONG. TENSILE % ELONG. 8.08 39.29 14603 10.27 14.37 27.11 -6 6.06 6.46 11261 7.92 5.51 30.68 -1 5.21 105.39 6.342 4.46 118.90 -14.43 1 5.21 105.39 6.342 4.46 118.90 -14.43 1 5.21 10.54 5213 3.67 342.52 -341 -0 14.55 12.48 19406 13.64 11.02 -6.20 -14.43 1 14.55 12.48 13.67 34.6 12.35 -1 -1 14.55 10.24 24898 17.51 94.5 17.10 -2 16.53 16.53 18.50 11.35 31.10 25.66 -1 </th <th></th> <th></th> <th></th> <th></th> <th>INTIAL TESTING</th> <th>ŋ</th> <th></th> <th>AFTEI</th> <th>AFTER AGING TESTING</th> <th>STING</th> <th>% CHANGE AFTER AGING</th> <th>FTER AGING</th>					INTIAL TESTING	ŋ		AFTEI	AFTER AGING TESTING	STING	% CHANGE AFTER AGING	FTER AGING
In^22 mm^22 mm^22 kg/mm^22 % ELONGATION Ibm/in^2 % ELONGATION Ibm/in/2 % ELONGATION Ibm/in/2 % ELONGATION IteNsite % ELONG TeNsite % ELONGATION IteNsite Itensite % ELONGATION Itensite Itensite % ELONGATION Itensite Itensite % ELONGATION Itensite % ELONGATION Itensite Itensite Itensite % ELONGATION Itensite Itensit Itensite Itensite	c	¥	CROSS-SECT	REA	TENS	SILE	provide the second s	TEN	SILE			
POLYPHTHALAMIDE 0.017 10.65 11489 6.06 39.22 14603 10.27 14.37 27.11 -6 ACETAL 0.017 10.57 9754 6.66 26.60 9403 6.61 23.82 -3.34 -3.38 -3.34 -3.44 118.90 -14.43 1 PENOLIC 0.017 10.57 9754 6.66 22.60 9403 6.61 23.83 -3.45 -3.44 118.90 -14.43 1 POLYPROPULENE 0.017 10.65 27.92 14.55 12.46 14.83 10.01 25.00 -14.43 1 -14.43 1 -14.43 1 -14.55 10.46 13.84 17.10 -14.45 17.10 -2.86 -3.48 17.10 -2.66 -4.48 17.10 -14.45 17.10 -14.45 17.10 -14.45 17.10 -14.45 17.10 -14.6 17.10 -2.86 4.48 17.40 17.41 2.71 -2.75 -2.86 17.11	Э		in^2	mm^2	lbm/in ^ 2	kg/mm ^ 2	% ELONGATION	lbm/in ^ 2	kg/mm ^ 2	% ELONG.	TENSILE	% ELONG.
POLIVENTIAD 0016 0.57 9754 6.86 22.60 9409 6.61 23.82 -354 0.06 1.261 7.92 5.51 0.068 1.1261 7.92 5.51 0.068 1.1 1.261 7.92 5.51 0.068 1.1 1.261 7.92 5.51 0.068 1.1 1.261 7.92 5.51 0.068 1.1 1.1 7.92 5.51 0.068 1.1 1.1 7.92 5.51 0.068 1.1 1.1 7.92 5.51 0.068 1.1 1.1 7.92 5.51 0.068 1.1 1.1 1.1 7.92 5.51 0.069 1.1 1.1 7.92 5.51 0.060 1.1 1.1 7.92 5.51 0.060 1.1 1.1 7.92 5.51 0.060 1.1 1.1 5.51 0.060 1.1 1.1 2.92 2.93 2.93 2.94 1.1 1.1 2.92 2.93 2.93 2.93 2.93			0.017	10.65	11489	8.08	39.29	14603	10.27	14.37	27.11	-63.43
PACE/TAL 0017 10.76 6617 6.06 6.46 11261 7.32 5.51 30.68	-†-		0.016	10.57	9754	6.86	an ender an ender an er	9409	6.61	23.82		5.40
FILENOLIC 0.016 10.30 7412 5.21 105.39 6342 4.46 11890 -14.43 POLYPROPYLENE 0.016 10.62 5.337 3.72 5.213 3.67 342.52 -3.41 POLYPROPYLENE 0.017 10.77 12728 5.213 3.67 342.52 -3.41 POLYPROPYLENE 0.017 10.77 12728 14.55 10.01 2.500 11.81 - POLYPROPYLENE 0.017 10.77 12728 19.406 13.64 11.02 -6.20 - POLYPRION 0.017 10.77 12728 10.24 24898 17.51 - <td< td=""><td>1</td><td></td><td>0.012</td><td>10.76</td><td>8617</td><td>6.06</td><td></td><td></td><td>7.92</td><td></td><td>30.68</td><td>-14.63</td></td<>	1		0.012	10.76	8617	6.06			7.92		30.68	-14.63
POLVENTIONE 0.016 10.62 5397 3.77 5213 3.67 3.42.52 -3.41 POLVENTLENE 0.017 10.77 12788 6.95 70.16 14231 10.01 25.00 11.81 POLVENTLENE 0.017 10.77 12788 6.95 70.16 14231 10.01 25.00 11.81 POLVENTENESULFIDE 0.017 10.78 12782 12.95 13.64 11.02 25.00 11.81 POLVENTENESULFIDE 0.017 10.78 12.72 2489 13.64 17.71 2486 17.61 2.35 POLVENTENESULFIDE 0.017 10.65 26.53 17.17 2794 19.66 17.10 - POLVAMIDE 0.017 10.67 15750 11.07 65.33 30.6 56.93 13.65 17.10 - - 46 - - 46 - - 46 - - 45.93 19.07 10.70 17.10 -	-	VINYI IDENE FI LIORIDE	0.016	10.30	7412	5.21	105.39	6342	4.46		-14.43	12.81
POLVENTIVE 0017 10.77 12728 8.95 70.16 14231 1001 25.00 11.81 - POLVETHYLENE TEREPHTHAL 0017 10.85 20689 14.55 12.46 13.64 11.02 -6.20 POLVETHYLENE TEREPHTHAL 0017 10.76 21222 14.95 10.24 13.64 11.02 -6.20 POLVETHALENE TEREPHTHAL 0017 10.76 21222 14.95 12.48 19.068 13.54 11.02 -6.20 POLVETHRAFLUOROETHYLEN 0017 10.69 22350 16.53 17.17 27.99 19.368 17.31 POLVANDE – IMIDE 0017 10.73 15750 11.07 64.33 16.50 11.39 31.10 22.66 13.49 19.07 POLVANDE – IMIDE 0017 10.73 15750 11.07 27.83 16.50 11.46 27.16 27.91 27.66 13.66 14.66 27.66 27.66 13.66 14.66 27.66 27.66 27.66	+		0.016	10.62	5397	3.79	372.76	5213	3.67	342.52	-3.41	-8.11
POLYETHYLENE TEREPHTHAL 0017 10.85 20689 14.55 12.46 13.64 11.02 -6.20 POLYETHYLENE TEREPHTHAL 0017 1076 21262 14.95 10.24 24988 17.51 9.45 17.10 POLYFHENCLESULFIDE 0017 1076 21262 14.95 10.24 24988 17.51 9.45 17.10 POLYFHENCLESULFIDE 0017 10.67 21262 14.95 27.33 262.68 4358 17.51 9.45 19.07 POLYTETRAFLUOROETHYLEN 0.017 10.677 16.65 20.16 26.33 16.51 24.98 17.51 9.45 19.07 POLYAMIDE - IMIDE 0.017 10.677 14.062 23.91 16.16 20.16 27.93 19.10 27.94 19.07 POLYATIONE 0.017 10.57 14.962 10.51 64.35 11.55 26.18 9.45 17.65 26.16 27.66 14.65 27.94 17.65 27.94 17.66 27.	+		0.017	10.77	12728	8.95	70.16		10.01	25.00	11.81	-64.37
POLYPHENYERESULFIDE 0.017 10.76 21262 14.95 10.24 2488 17.10	+	THYI FNF TFREPHTHAL	0.017	10.85	20689	14.55	12.48	19406	13.64	-		-11.67
POLYTETRAFLUOROETHYLEN 0.013 8.63 3879 273 262.68 4356 3.06 282.68 12.35 POLYAMIDE – IMIDE 0.017 10.69 23510 16.53 17.17 27934 19.68 19.49 19.07 POLYAMIDE – IMIDE 0.017 10.67 22990 16.16 20.16 15.33 18.50 -14.6 POLYAMIDE – IMIDE 0.017 10.73 15750 11.07 64.33 16.203 18.50 -14.6 POLYAMIDE – IMIDE 0.016 10.57 14948 10.53 14946 10.53 31.10 286 -46 MODIFEID POLYTHERIMIDE 0.016 10.63 7240 509 162.40 7414 5.21 15.6 -240 -240 -240 -240 -240 -240 -240 -240 -240 -240 -240 -240 -260 17.55 -240 -240 -240 -240 -27 2810 16.56 17.56 -240 -240 -240		PHENYLENESULFIDE	0.017	10.76	21262	14.95	10.24	24898	17.51			
POLYAMIDE - IMIDE 0.017 10.69 23510 16.53 17.17 27994 19.68 19.07 POLYAMIDE - IMIDE 0.017 10.67 22990 16.16 20.16 22654 15.93 18.50 -146 POLYAMIDE - IMIDE 0.017 10.73 15750 11.07 64.33 16.203 18.50 -146 POLYAMIDE - IMIDE 0.017 10.73 15750 11.07 64.33 16.203 18.50 -146 POLYAMIDE - IMIDE 0.017 10.57 14946 10.51 64.33 16.500 11.35 28.18 -146 POLYAMUETHERKETONE 0.017 10.95 14946 10.51 62.28 16435 11.55 28.18 -9.71 POLVBUTVLENE TEREPHTHALATE 0.017 10.95 7240 5.29 16435 11.55 29.11 -2.64 -9.71 -9.71 POLVBUTVLENE TEREPHTHALATE 0.017 10.901 14360 10.54 35.38 6.46 -9.71 -7.24 15.64 </td <td>+</td> <td>FTRAFI LIOROFTHYLEN</td> <td>0.013</td> <td>8.63</td> <td>3879</td> <td>2.73</td> <td>262.68</td> <td>4358</td> <td>3.06</td> <td></td> <td>12.35</td> <td></td>	+	FTRAFI LIOROFTHYLEN	0.013	8.63	3879	2.73	262.68	4358	3.06		12.35	
POLYAMIDE 0.017 10.67 22990 16.16 20.16 22654 15.93 18.50 -1.46 POLYETHERIMIDE 0.017 10.73 15750 11.07 64.33 16200 11.39 31.10 286 POLYETHERIMIDE 0.016 10.57 14082 9.90 46.38 14991 10.54 35.98 6.46 MODIFIED POLYETHERIMIDE 0.016 10.63 14946 10.51 62.28 14.991 10.54 35.98 6.46 POLYNILTENE TEREPHTHALATE 0.017 10.95 7240 5.09 162.40 7414 5.21 15.16 2.40 POLYIMIDE – DF 0.017 10.95 7.44 12205 8.56 17.59 15.61 2.40 POLYIMIDE – DF 0.017 10.90 14.42 12205 8.17 9.14.96 17.52 -9.71 POLYIMIDE – DF 0.017 10.90 14.42 12203 8.13 14.96 10.26 17.52 -9.71 P	+-		0.017	10.69	23510	16.53			19.68			
POLIVETHERIMIDE 0.017 10.73 15750 11.07 64.33 16200 11.35 31.10 286 POLYETHERIMIDE 0.016 10.57 14082 9.90 46.38 14991 10.54 35.98 6.46 POLYETHERIMIDE 0.016 10.57 14082 9.90 46.38 14991 10.54 35.98 6.46 POLYETHEREPHTHALATE 0.017 10.95 7240 5.09 162.40 7114 5.21 15.16 2.40 POLVBUTVENETEREPHTHALATE 0.017 10.95 7240 5.09 162.40 7114 5.21 15.16 2.40 POLVIMDE -DF 0.017 10.95 7240 5.09 162.40 7144 5.21 15.16 2.40 POLVIMDE -DF 0.017 10.90 14.42 12209 8.58 17.99 16.52 17.52 -9.71 POLVIMDE -DF 0.017 10.90 14.360 10.16 10.35 14.45 17.32 15.68 17.52 <td></td> <td></td> <td>0.017</td> <td>10.67</td> <td>22990</td> <td>16.16</td> <td>20.16</td> <td></td> <td>15.93</td> <td></td> <td></td> <td>-8.20</td>			0.017	10.67	22990	16.16	20.16		15.93			-8.20
FOLTET Inclument 0.016 10.57 14082 9.90 46.38 14.991 10.54 35.98 6.46 MODIFIED POLYETHERIMIDE 0.016 10.63 14.946 10.51 62.28 16435 11.55 26.18 9.96 POLYARYLETHERKETONE 0.017 10.95 7.240 5.09 162.40 7.41 5.21 15.16 2.40 POLYBUTYLENE TEREPHTHALATE 0.017 10.95 7.240 5.09 162.40 7.41 5.21 15.16 2.40 POLYBUTYLENE TEREPHTHALATE 0.017 10.95 7.64 22.72 9810 6.90 17.52 -9.71 POLYIMDE – DF 0.017 10.90 14.42 12209 8.58 17.99 11496 8.08 14.57 -5.84 POLYIMDE – DF – ISO 0.017 10.90 12.488 8.78 17.96 8.17 47.24 15.08 POLYIMDE – DF – ISO 0.017 10.69 12.488 8.78 11615 8.17 47.24 15.08	+		0.017	10.73	15750	11.07	64.33	16200	11.39		2.86	-51.65
MOUNTED FOLTATION 0016 10.63 14946 10.51 62.28 16435 11.55 26.18 9.96 POLVARVLETHERKETONE 0.017 10.95 7240 5.09 162.40 7414 5.21 15.16 2.40 POLVBUTVLENE TEREPHTHALATE 0.017 10.95 7240 5.09 162.40 7414 5.21 15.16 2.40 POLVBUTVENE TEREPHTHALATE 0.022 14.42 12209 5.09 162.40 7414 5.21 15.16 2.40 POLVBUTVENE 0.077 10.90 14360 10.10 7.504 14356 10.26 67.32 1.58 POLVIMIDE – DF – ISO 0.017 10.69 12486 8.78 11436 10.26 67.32 1.58 POLVIMIDE – OF – ISO 0.017 10.69 12486 8.78 10.35 10.64 19.86 POLVIMER 0.017 10.64 10063 7.10 81.30 10.52 10.04 19.86 LIQUID CAYSTAL POLYAMIDE	+		0.016	10.57	14082	06.6			10.54			
POLVENTLE TOLIMILE TOLIME TOLIME <thtolime< th=""> <thtolime< th=""> <thtolim< td=""><td></td><td></td><td>0.016</td><td>10.63</td><td>14946</td><td>10.51</td><td></td><td></td><td>11.55</td><td>26.18</td><td></td><td></td></thtolim<></thtolime<></thtolime<>			0.016	10.63	14946	10.51			11.55	26.18		
POLYMIDE -DF 0.023 14.76 10865 7.64 22.72 9810 6.90 17.52 -9.71 POLYMIDE -DF 0.022 14.42 12209 8.58 17.99 11456 8.08 14.57 -5.84 POLYMIDE -DF 0.017 10.90 14360 10.10 75.04 14586 10.26 67.32 1.58 POLYMIDE -DF 0.017 10.90 14360 10.10 75.04 14586 10.26 67.32 1.58 POLYMIDE -DF 0.017 10.69 12486 8.78 10.35 14586 10.26 67.32 1.58 LIQUID CRYSTAL POLYMER 0.016 10.69 12486 8.78 10.35 1476 19.86 LIQUID CRYSTAL POLYMIDE 0.016 10.64 10033 7.10 81.30 1615 8.77 47.24 15.08 ALL CALCULATIONS BASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. A1.64 15.08 15.08 ALL TENSILE PULLS WERE AT AMBIENT CONDITION AND WITHIN 24HRS AFT	-+-		0.017	10.95	7240	5.09	162.40	7414	5.21			
POLYMIDE - UF 8.08 14.57 -5.84 POLYMIDE - DF ISO 0.017 10.90 14360 10.10 75.04 1456 8.08 14.57 -5.84 POLYMIDE - DF ISO 0.017 10.90 14360 10.10 75.04 14566 10.26 67.32 156 POLYMIDE - DF ISO 0.017 10.69 12488 8.78 10.35 14968 10.52 10.04 19.86 POLYMER 0.016 10.64 10033 7.10 81.30 11615 8.17 47.24 15.08 LIQUID CRYSON POLYMER 0.016 10.64 10033 7.10 81.30 11615 8.17 47.24 15.08 ALL CALCULATIONS BASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. A1.24 15.08 15.08 ALL TENSILE PULLS WERE AT AMBIENT CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS. N/A = TEST BAR DESTROYED BY CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS. A1.24 15.08			0.023	14 76	10865	7.64	22.72	9810	6.90			-22.86
FOL VIMILE-UF 0.017 10.90 14360 10.10 75.04 14566 10.26 67.32 1.58 POL V(ARYLETHERETHERETONE) 0.017 10.69 12488 8.78 10.35 14966 10.52 10.04 19.86 POL V(ARYLETHERETHERETONE) 0.017 10.69 12488 8.78 10.35 14966 10.64 19.86 LIQUID CRYSTAL POLYMER 0.016 10.64 10093 7.10 81.30 11615 8.17 47.24 15.08 ALL CALCULATIONS BASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. ALL CALCULATIONS BASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. ALL TENSILE PULLS WERE AT AMBIENT CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS. N/A = TEST BAR DESTROYED BY CONDITIONS. AND WITHIN 24HRS AFTER AGING CONDITIONS. AT 24 15.08	- +		0.022	14.42	12209	8.58			8.08		1	
MER 0.017 10.69 12488 8.78 10.35 14968 10.52 10.04 19.86 0.016 10.64 10093 7.10 81.30 11615 8.17 47.24 15.08 ALL CALCULATIONS BASED ON AN AVERAGE OF TWO TENSILE TESTS. 8XCEPT NO.16 WHICH IS 5. 8.17 47.24 15.08 ALL TENSILE PULLS WERE AT AMBIENT CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS. N/A = TEST BARDESTROVED BY CONDITIONS. 15.08	- +-	MUC-UL-130 BXI FTUERETUERETONE	0.017	10.90	14360	10.10			10.26		1.58	
ALL CALCULATIONS BASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. ALL CALCULATIONS BASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. ALL TENSILE PULLS WERE AT AMBIENT CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS. N/A = TEST BARDESTROYED BY CONDITIONS.		CONCEPTENENE DOI VALED	2100	10.69	12488	8.78			10.52	·	19.86	-3.04
ALL CALCULATIONS B ALL TENSILE PULLS W N/A = TEST BARDEST			0.016	10.64	10093	7.10			8.17		-	-41.89
ALL CALCULATIONS BASED ON AN AVERAGE OF 1WO TENSILE TEXTS, EXCEPTING TO THE ALL TENSILE PULLS WERE AT AMBIENT CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS. N/A = TEST BAR DESTROYED BY CONDITIONS.							TENON E TESTS	CVCEDT NO		5		
N/A = TEST BAR DESTROYED BY CONDITIONS.			ALL CALCULA	TIONS BASED	UN AN AVEN T AMBIENT C		VD WITHIN 24HBS	AFTER AGIN	G CONDITIO	NS.		
			N/A = TEST B	AR DESTROYE	D BY CONDIT	IONS.						

TENSILE PROPERTIES OF PLASTICS EXPOSED TO 32 ISO VG BRANCHED ACID POLYOL ESTER AND HFC-134 (R-134) [14 DAYS AT 150 DEG.C. (300 DEG.F.) AT 275-300 PSIA] TABLE F-9

TYPE CROSS-SECTIONAL AREA TENSILE TENSILE TENSILE POLYPHTHALAMIDE 0.017 10.65 11489 8.08 39.29 15161 10.66 14.57 POLYPHTHALAMIDE 0.017 10.55 11489 8.08 39.29 15161 10.66 14.57 ACETAL 0.017 10.55 8617 6.68 2.343 9.21 ACETAL 0.017 10.55 8617 6.68 15.33 17.45 3.73 9.21 POLYMENTERFERENCE 0.017 10.56 10.53 74.12 5.21 10.53 6.817 6.86 6.96 2.34 3.12 9.21 POLYENTYCENE 0.017 10.56 2.166 14.55 7.45 2.75 9.66 4.66 0.92 10.26 POLYENTYCENE 0.017 10.76 2.286 14.55 7.45 2.16 17.16 8.46 2.06 10.66 1.76 2.16 10.66 1.715 1.6 1.6 1.716					INTIAL TESTING	NG		AFTE	AFTER AGING TESTING		% CHANGE AFTER AGING	FTER AGING
POLYPHTALMIDE Inh ² 2 mm ² 2 grum ² 2 % ELONGATION bmm ² 2 % ELONGATION Tension	ġ	TYPE	CROSS-SECT	TONAL AREA	TEN	SILE		TEN	SILE			
POLYPHTHALAMIDE 0017 10.65 11489 8.08 39.29 15161 10.66 14.57 31.96 - ACETAL 0017 10.57 3754 6.86 7.85 6.85 23.43 1.32 23.43			in^2	mm^2	lbm/in ^ 2	kg/mm ^ 2	% ELONGATION	lbm/in ^2	kg/mm ^ 2		TENSILE	% ELONG.
ACETAL 0016 1057 9754 6.96 2.260 9882 6.95 2.343 1.32 POLVNINULDENE FLUORIDE 0.016 10.77 6/17 5.21 105.39 1.745 2/12 2/2.37 POLVNINULDENE FLUORIDE 0.017 10.76 6/17 5.21 105.39 1.745 2/12.45 1.32 POLVPROPUE 0.017 10.76 7/39 3/75 6/66 5/26 9/27 2/26 1/26 1/26 1/26 1/26 1/26 1/26 1/26 1/26 1/26 1/26 1/26 1/26 1/26 1/26 1/26 1/27 1/26 1/27 1/26 1/27	1	POLYPHTHALAMIDE	0.017	10.65	11489	8.08	39.29		10.66		31.96	-62.93
PHENOLIC 0.017 10.76 6617 6.06 6.46 10591 7.42 4.72 2297 -2297 -22 POLYPRIONLER 0.016 10.30 7412 5.21 10.53 6811 4.79 332.00 -13.46 -13.54 -13.54 -13.54 -13.54 -13.54 -13.54 -13.54 -13.54 -13.54 -13.54 -13.56 <td></td> <td>ACETAL</td> <td>0.016</td> <td>10.57</td> <td>9754</td> <td>6.86</td> <td>22.60</td> <td>9882</td> <td>6.95</td> <td></td> <td>1.32</td> <td></td>		ACETAL	0.016	10.57	9754	6.86	22.60	9882	6.95		1.32	
POLIVINYLDENE FLUORIDE 0016 10.30 7412 5.21 105.39 6811 4.75 99.21 9.06 POLIVARYLDENE 0.017 10.77 10.77 10.77 17.75 4650 3.27 312.20 -13.84 POLYARYLENE TERENTHALATE 0.017 10.77 12728 8.95 701 4650 3.27 31520 -13.84 POLYARYLENE TERENTHALATE 0.017 10.76 21262 14.95 12.46 13739 9.66 -53.70 -23.59 -56.83 14.75 -33.59 -33.59 -33.59 -33.59 -33.59 -33.59 -33.59 -33.59 -33.59 -33.59 -33.59 -33.59 -33.59 -33.59 <td></td> <td>PHENOLIC</td> <td>0.017</td> <td>10.76</td> <td>8617</td> <td>6.06</td> <td>6.46</td> <td>10597</td> <td>7.45</td> <td></td> <td>22.97</td> <td>-26.83</td>		PHENOLIC	0.017	10.76	8617	6.06	6.46	10597	7.45		22.97	-26.83
POLYPROPYLENE 0.016 10.62 5.397 372.76 4650 3.27 312.20 -13.84 POLYPENYL SULFONE 0.017 10.77 12.728 8.95 70.16 94.46 6.29 4.606 -29.70 - POLYFHYNLENESULFDE 0.017 10.77 12.728 8.455 10.24 13739 9.66 -33.59 - -37.66 -33.59 - -37.66 -33.59 - -37.66 -33.59 - -37.66 -33.59 - -37.66 -33.59 - -37.66 -33.59 - -37.66 -33.59 - -37.66 -33.59 - -37.66 -33.59 - - -13.75 - - - -37.66 -33.66 -33.69 - -37.66 -33.69 - - -37.66 -33.61 - -37.66 -33.61 - -37.66 -33.61 - -37.66 -36.66 -33.61 - -36.66 -33.61 - -37.66 -16.6	5	POLYVINYLIDENE FLUORIDE	0.016	10.30	7412	5.21	105.39	6811	4.79		-8.06	
POLVARYL SULFONE 0.017 10.77 12728 8.95 70.16 8948 6.29 46.06 -29.70 POLVENTVLENE TERETHIALATE 0.017 10.77 12.728 8.95 70.16 8948 6.29 46.06 -29.70 POLVETTARLUOROETHYLENE 0.017 10.76 22682 14.35 10.248 13737 9.95 8.65 -33.59 -33.59 POLYTETARLUOROETHYLENE 0.017 10.65 23610 16.53 17.17 14133 9.94 2106 -29.76 POLYTETARLUOROETHYLENE 0.017 10.65 23510 16.53 17.17 14133 9.94 2106 -2.93 POLYTETARLUOROETHYLENE 0.017 10.67 10.57 14082 2871 14133 7.48 2106 -2.936 POLYTETHERMED 0.017 10.657 14926 10.51 14.325 3.31 7.48 -14.35 -14.35 -14.35 -14.35 -3.32 -14.35 -14.35 -14.35 -14.35 -3.33 </td <td>80</td> <td>POLYPROPYLENE</td> <td>0.016</td> <td>10.62</td> <td>5397</td> <td>3.79</td> <td>372.76</td> <td>4650</td> <td>3.27</td> <td>312.20</td> <td>-13.84</td> <td>1</td>	80	POLYPROPYLENE	0.016	10.62	5397	3.79	372.76	4650	3.27	312.20	-13.84	1
POLVETHYLENE TEREPHTHALATE 0017 10.85 20680 14.55 12.46 13739 9.66 8.46 -33.59 POLVPENVLENESULFIDE 0017 10.76 21262 14.55 17.717 1715 8.66 14.75 - POLVFIENTURUOCETHYLENE 0017 10.76 21262 14.55 24337 17.15 8.65 14.75 - POLVTAMIDE - MIDE 0017 10.69 23510 16.53 17.717 1193 9.94 21.06 -39.86 POLVETHERMIDE 0017 10.67 12750 11.07 64.33 16271 14.42 3.31 - - 263 - 263 3.31 - 2.63 3.31 - 2.63 3.31 - 2.63 3.31 - 2.63 3.31 - 2.63 3.31 - 2.63 3.31 - 2.63 3.31 - 2.63 3.31 - 2.63 3.31 - 2.63 7.48 -	6	POLYARYL SULFONE	0.017	10.77	12728	8.95	70.16	8948	6.29		- 29.70	-34.34
POLYPHERNULE 0017 10.76 21282 14.95 10.24 24387 17.15 8.66 14.75 POLYTERKULOROETHYLENE 0.013 8.63 23510 2.73 282.66 7099 267.32 83.04 POLYTERFLUOROETHYLENE 0.017 10.667 22990 16.16 20.16 22365 15.74 18.31 -2.65 POLYTERFLUE 0.017 10.677 22990 16.16 20.16 22365 15.74 18.31 -2.65 POLYAMIDE 0.017 10.677 15750 11.07 64.33 16271 11.4 44.29 3.31 POLYETHERINDE 0.017 10.57 14.76 10.86 7.46 16.56 4.33 7.48 -16.56 POLYETHERENDE 0.017 10.55 746 5.59 16.24 64.33 7.48 -16.57 POLYBUTC 0.022 14.76 10.865 7.46 16.56 7.37 17.13 -3.52 POLYBUTC 0.017		POLYETHYLENE TEREPHTHALATE	0.017	10.85	20689	14.55	12.48	13739	99.66		-33.59	-32.18
POLYTETRAFLUOROETHYLENE 0.013 8.63 3879 2.73 262.66 7099 4.39 267.32 83.04 POLYAMIDE - IMIDE 0.017 10.69 23510 16.16 20.16 16.53 17.17 14139 9.394 21.06 -39.66 -16.46 -16.46 -16.46 -16.46 -16.46 -16.46 -16.46 -16.46 -16.46 -16.46 -17.97 -17.97 -36.72 10.48 -16.46 -16.46 -16.46 -16.46 -16.46 -16.46 -16.46 -16.46 -16.46 -16.47 16.79 16.76 16.36 <td></td> <td>POLYPHENYLENESULFIDE</td> <td>0.017</td> <td>10.76</td> <td>21262</td> <td>14.95</td> <td>10.24</td> <td>24397</td> <td>17.15</td> <td></td> <td>14.75</td> <td>-15.38</td>		POLYPHENYLENESULFIDE	0.017	10.76	21262	14.95	10.24	24397	17.15		14.75	-15.38
POLYAMDE - IMDE 0017 10.69 23510 16.53 17.17 14139 9.94 21.06 -39.86 POLYAMDE - IMDE 0.017 10.67 22990 16.16 20.16 23385 15.74 18.31 -2.63 POLYAMDE - IMDE 0.017 10.67 22990 16.16 20.16 23385 15.74 18.31 -2.63 POLYAMDE - IMDE 0.017 10.57 14985 10.51 64.33 16274 18.31 -2.65 POLYETHERIMDE 0.017 10.57 14985 10.51 62.23 8.88 50.00 -10.26 -33.52 - POLYBUTYLENE TEREPHTHALATE 0.017 10.95 7.240 5.09 162.40 61.65 4.33 7.48 -14.54 -3.52 - - -3.52 - - - - - -3.52 - - - - - - - - - - - - - - - <		POLYTETRAFLUOROETHYLENE	0.013	8.63	3879	2.73	262.68	2099	4.99	26	83.04	1.77
POLYAMIDE – IMIDE 0017 10.67 22990 16.16 20.16 22385 15.74 18.31 - -2.63 POLYETHERINDE 0.017 10.73 15750 11.07 64.33 16271 11.44 44.29 3.31 - MODIFIED POLYETHERINDE 0.017 10.657 14.082 5.99 46.33 16271 11.44 44.29 3.31 - 2.65 3.31 - 2.65 3.31 - 10.25 3.31 - 10.25 3.31 - 10.25 3.31 - 10.25 3.31 - 10.25 3.31 - 10.25 3.31 - 10.25 3.31 - 10.25 - 10.35 14.25 3.31 - 10.35 10.15 10.27 10.25 - 11.37 - 15.46 15.46 15.46 15.35 - 15.45 - 15.45 - 15.45 15.46 15.45 11.43 - 15.45 15.45		POLYAMIDE - IMIDE	0.017	10.69	23510	16.53	17.17	14139	9.94		-39.86	22.71
POLYETHERIMDE 0.017 10.73 15750 11.07 64.33 16271 11.44 44.29 3.31 -23 MODIFIED POLYETHERIMDE 0.016 10.57 14082 9.90 46.38 15146 8.88 50.00 -10.26 -12.64 -13.47 -14.29 3.31 -23 POLYARYLETHERKETONE 0.017 10.63 14966 10.51 62.28 15146 8.88 7.48 -11.97 -9 POLYARYLETHERKETONE 0.017 10.95 7.40 5.09 162.28 12637 8.88 7.48 -11.497 -3.52 -2.352 -2.272 10.482 7.38 17.13 -3.52 -2.52 -2.272 10.482 7.38 17.13 -3.52 -2.52 -2.572 10.482 7.48 -11.497 -3.52 -2.52 -13.500 17.33 -13.430 10.35 14.430 10.15 8.55 45.47 20.51 -4 POLYMERE 0.017 10.69 12.488 8.55 45.47 </td <td></td> <td>POLYAMIDE - IMIDE</td> <td>0.017</td> <td>10.67</td> <td>22990</td> <td>16.16</td> <td>20.16</td> <td>22385</td> <td>15.74</td> <td></td> <td>-2.63</td> <td>-9.18</td>		POLYAMIDE - IMIDE	0.017	10.67	22990	16.16	20.16	22385	15.74		-2.63	-9.18
MODIFIED POLYETHERIMDE 0.016 10.57 14082 9.90 46.38 15146 8.88 50.00 -10.26 POLYARYLETHERKETONE 0.016 10.53 14946 10.51 62.28 12637 8.88 7.48 -15.45 -6 POLYBUTYLENE TEREPHTHALATE 0.017 10.95 7240 5.09 162.40 6156 4.33 7.48 -15.45 -6 POLYBUTYLENE TEREPHTHALATE 0.017 10.95 7240 5.09 162.40 6156 4.33 7.48 -15.45 -6 POLYNIDE – DF 0.022 14.76 10865 7.64 22.72 10482 7.37 17.13 -3.52 -2 -2 -10.95 7.48 -16.92 -7.85 -7.85 -16.92 -2 -2 -2 -16.92 -17.37 17.13 -3.52 -2 -2 -2 -16.92 17.35 -10.92 -17.92 -17.92 -16.92 -17.37 17.13 -3.52 -2 -2 -10.92		POLYETHERIMIDE	0.017	10.73	15750	11.07	64.33	16271	11.44	44.29	3.31	-31.15
POLYARYLETHERKETONE 0.016 10.63 14946 10.51 62.28 12637 8.88 7.48 -15.45 -6 POLYBUTYLENE TEREPHTHALATE 0.017 10.95 7240 5.09 162.40 6156 4.33 7.48 -14.97 -5 POLYBUTYLENE TEREPHTHALATE 0.017 10.95 7.64 5.09 162.40 6156 4.33 7.48 -14.97 -5 POLYIMIDE DF 0.022 14.42 12209 10855 7.65 13.19 -10.92 -2 2 -2 2 -10.92 -2 -2 -2 -2 -2 -2 -10.92 -2 -2 -2 -2 -2 -2 -2 -2 -2 10.050 10.66 10.		MODIFIED POLYETHERIMIDE	0.016	10.57	14082	96.9	46.38	15146	8.88		- 10.26	7.81
POLYBUTYLENE TEREPHTHALATE 0.017 10.95 7240 5.09 162.40 6156 4.33 7.48 -14.97 -9 POLYNIDE DF 0.023 14.76 10865 7.64 22.72 10482 7.37 17.13 -3.52 -2 POLYIMIDE DF 0.022 14.42 12209 8.58 17.99 10875 7.65 13.19 -10.92 -2 POLYIMIDE DF -ISO 0.017 10.90 14360 10.75 8.56 10.765 13.19 -10.92 -10.92 -2 -10.92 -5 10.65 10.65 10.65 10.65 10.50 7.00 -7.00 -7.00 -2 -2 6 <t< td=""><td></td><td>POLYARYLETHERKETONE</td><td>0.016</td><td>10.63</td><td>14946</td><td>10.51</td><td>62.28</td><td>12637</td><td>8.88</td><td>7.48</td><td>-15.45</td><td>-87.99</td></t<>		POLYARYLETHERKETONE	0.016	10.63	14946	10.51	62.28	12637	8.88	7.48	-15.45	-87.99
POLYIMIDE - DF 0.023 14.76 10865 7.64 22.72 10482 7.37 17.13 -3.52 -2 POLYIMIDE - DF - ISO 0.022 14.42 12209 8.58 17.99 10875 7.65 13.19 -10.92 -2 POLYIMIDE - DF - ISO 0.017 10.90 14360 10.10 75.04 15365 10.876 7.579 7.00 POLYARYLETHERKETONE 0.017 10.69 12488 8.78 10.35 14430 10.15 8.86 15.55 -1 LIQUID CRYSTAL POLYMER 0.016 10.64 10033 7.10 81.30 12163 8.55 45.47 20.51 -4 66 NYLON, POLYAMIDE 0.016 10.64 10033 7.10 81.30 12163 8.55 45.47 20.51 -4 ALL CALCULATIONS BASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. AL5.47 20.51 -4 ALL TENSILE PULLS WERE AT AMBIENT CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS. N/A = TEST BAR DESTROYED BY CONDITIONS. 20.51 <td></td> <td>POLYBUTYLENE TEREPHTHALATE</td> <td>0.017</td> <td>10.95</td> <td>7240</td> <td>5.09</td> <td>162.40</td> <td>6156</td> <td>4.33</td> <td>7.48</td> <td>-14.97</td> <td>-95.39</td>		POLYBUTYLENE TEREPHTHALATE	0.017	10.95	7240	5.09	162.40	6156	4.33	7.48	-14.97	-95.39
POLYIMIDE - DF - ISO 0.022 14.42 12.209 8.58 17.99 10875 7.65 13.19 -10.92 -2 POLY(ARYLETHERKETONE) 0.017 10.90 14360 10.10 75.04 15365 10.80 75.79 7.00 <t< td=""><td></td><td>POLYIMIDE-DF</td><td>0.023</td><td>14.76</td><td>10865</td><td>7.64</td><td>22.72</td><td>10482</td><td>7.37</td><td>17.13</td><td>-3.52</td><td>-24.61</td></t<>		POLYIMIDE-DF	0.023	14.76	10865	7.64	22.72	10482	7.37	17.13	-3.52	-24.61
POLY(ARYLETHERETHERKETONE) 0.017 10.90 14360 15365 10.80 75.79 7.00 LIQUID CRYSTAL POLYMER 0.017 10.69 12488 8.78 10.35 14430 10.15 8.86 15.55 -1 LIQUID CRYSTAL POLYMER 0.017 10.64 10.093 7.10 81.30 12163 8.55 45.47 20.51 -4 66 NYLON. POLYAMIDE 0.016 10.64 100033 7.10 81.30 12163 8.55 45.47 20.51 -4 ALL CALCULATIONS BASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. ALL TENSILE PULLS WERE AT AMBIENT CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS. N/A = TEST BAR DESTROYED BY CONDITIONS.		POLYIMIDE-DF-ISO	0.022	14.42	12209	8.58	17.99	10875	7.65	13.19	-10.92	-26.70
LIQUID CRYSTAL POLYMER 0.017 10.69 12488 8.78 10.35 14430 10.15 8.86 15.55 66 NYLON. POLYAMIDE 0.016 10.64 10093 7.10 81.30 12163 8.55 45.47 20.51 ALL CALCULATIONS BASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. ALL TENSILE PULLS WERE AT AMBIENT CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS. N/A = TEST BAR DESTROYED BY CONDITIONS.		POLY(ARYLETHERETHERKETONE)	0.017	10.90	14360	10.10	75.04	15365	10.80	75.79	7.00	1.00
66 NYLON. POLYAMIDE 0.016 10.64 10093 7.10 81.30 12163 8.55 45.47 20.51 ALL CALCULATIONS BASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. ALL TENSILE PULLS WERE AT AMBIENT CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS. N/A = TEST BAR DESTROYED BY CONDITIONS. 20.51	-	LIQUID CRYSTAL POLYMER	0.017	10.69	12488	8.78	10.35	14430	10.15	8.86	15.55	-14.45
ALL CALCULATIONS BASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. ALL TENSILE PULLS WERE AT AMBIENT CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS. N/A = TEST BAR DESTROYED BY CONDITIONS.		66 NYLON, POLYAMIDE	0.016	10.64	10093	7.10	81.30	12163	8.55	45.47	20.51	-44.07
ALL TENSILE PULLS WERE AT AMBIENT CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS. N/A = TEST BAR DESTROYED BY CONDITIONS.		ι	ALL CALCULAT	IONS RASED	N AN AVER	AGE OF TWO	TENSILE TESTS	EXCEPT NO 1				
N/A = TEST BAR DESTROYED BY CONDITIONS.			ALL TENSILE PI	ULLS WERE A	T AMBIENT C	ONDITION AN	D WITHIN 24HRS	AFTER AGINC	CONDITION	, S		
]	N/A = TEST BA	R DESTROYE	BY CONDIT	IONS.						

TENSILE PROPERTIES OF PLASTICS EXPOSED TO 32 ISO VG BRANCHED ACID POLYOL ESTER AND HFC-134a (R-134a) [14 DAYS AT 150 DEG.C. (300 DEG.F.) AT 275-300 PSIA] TABLE F-10

2

TYPE TRONLE CROSS-SECTIONAL AREA TENSILE TENSILE TENSILE TENSILE TENSILE TENSILE TENSILE RELONG TOGE TENSILE RELONG TENSILE RELONG TOGE TOGE TOGE TOGE TOGE TENSILE RELONG TOGE TOGE <thtoge< th=""> TOGE TOGE <</thtoge<>	-				INTIAL TESTING	NG		AFTEI	AFTER AGING TESTING		% CHANGE AFTER AGING	FTER AGIN
POLYPHTHALAMIDE In^22 mm^22 lbm/in^22 k ELONGATION lbm/in^22 k ELONGATION lbm/in^22 k ELONGA TENSLE % ELONG POLYPHTHALAMIDE 0017 10,57 10,57 16,55 30081 30081 30081 30081 30081 11,15 11,15 <t< th=""><th>C</th><th>TYPE</th><th>CROSS-SECI</th><th>IONAL AREA</th><th>TEN</th><th>SILE</th><th></th><th>TEN</th><th>SILE</th><th></th><th></th><th></th></t<>	C	TYPE	CROSS-SECI	IONAL AREA	TEN	SILE		TEN	SILE			
POLYPHTHALAMIDE 0.017 10.65 11480 6.06 39.29 150.28 10.57 15.55 30.81 -66 ACETAL 0.017 10.57 9754 6.86 22.60 9866 6.94 25.59 11.15 PENDINUL 0.017 10.77 16.57 16.57 16.55 30.11 15.55 11.15 <td< th=""><th>ò</th><th></th><th>in ^ 2</th><th>mm^2</th><th>lbm/in ^2</th><th>kg/mm ^ 2</th><th>% ELONGATION</th><th>lbm/in ^ 2</th><th>kg/mm ^ 2</th><th></th><th>TENSILE</th><th>% ELONG.</th></td<>	ò		in ^ 2	mm^2	lbm/in ^2	kg/mm ^ 2	% ELONGATION	lbm/in ^ 2	kg/mm ^ 2		TENSILE	% ELONG.
ACETAL 0016 1057 9734 6.86 6.26 6.96 6.94 25.59 1.15 1 PERNOLC 0017 10.77 9734 6.86 16.86 16.86 16.86 16.93 7.28 37.04 1 PERNOLC 0017 10.77 12728 37.9 7759 3.33 256.30 -11.9 -3 POLYPHOPYLENE 0017 10.86 2083 14.55 12.46 1759 3.33 256.30 -11.91 -3 POLYPHOPYLENE 0017 10.86 2185 12.46 1770 12.24 23530 -15.85 -16.96 -16.86 -16.86 -16.86 -16.86 -16.86 -17.28 10.43 16.61 - -17.28 10.43 16.61 - -16.86 -16.86 -16.86 -16.86 -16.86 -16.86 -16.86 -16.86 -17.89 10.43 16.61 -17.88 -17.89 10.43 16.61 -17.88 -17.86 10.72			0.017	10.65	11489	8.08	39.29	15028	10.57	15.55	30.81	-60.42
PHEROLIC POLYNINYLIDENE FLUORIDE 0.017 0.016 10.76 10.30 6617 521 6.06 521 6.46 11800 6.30 7.28 37.04 1 1 1 2 3 2 3 2 2 2 3 2 3 2 2 2 3 2 3 2 2 2 3 2 2 2 3 2 2 2	+		0.016	10.57	9754	6.86	22.60	9866	6.94		1.15	13.24
POLYNINUCENE FLUORIDE 0016 10.30 7412 5.21 105.39 6682 4.63 100.39 -11.19 POLYNINUCENE FLUORIDE 0.016 10.52 5337 3.72 6582 4.63 100.39 -11.19 POLYNINUCENE FLUORIDE 0.017 10.77 1278 545 5.45 12.39 335 -912.37 -910.55 POLYPENYL SULFDE 0.017 10.76 21282 14.55 12.48 17410 12.24 12.20 -1565 POLYPHENVLENESULFDE 0.017 10.56 21282 14.95 17.17 12.48 17410 12.24 12.20 -1565 POLYPHENVLENESULFDE 0.017 10.56 21282 14.16 290 240.16 6.18 - POLYPHENULE 0.017 10.57 16.53 2126 2135 17.17 2352 14.86 -16.87 -17.86 -16.81 -21.26 -11.87 -21.26 -11.87 -21.26 -21.81 -21.26 -21.81 -21	Т		0.012	10.76	8617	90.9	6.46	11809	8.30	7.28	37.04	12.80
POLYRRINE OOI 10.62 5397 377 17.26 4729 3.33 256.30 -12.37 -3 POLYRRULEN 0.017 10.77 12.72 8.65 77.16 77.26 3.33 256.30 -12.37 -3 POLYRRULEN 0.017 10.77 12.722 14.55 12.44 17.16 17.26 10.43 1561 -12.87 -3 950 -5 2 2 33 -5 0 -15.65 -10.43 1561 -1	1		0.016	10.30	7412	5.21	105.39	6582	4.63		-11.19	-4.7
POLVARYLENE 0017 10.77 12728 8.95 70.16 7758 5.45 29.33 -99.05	+		0.016	10.62	5397	3.79	372.76	4729	3.33	2	-12.37	-31.2
POLYPHENTLENE TEREPHTHALTE 0017 10.85 20689 14.55 12.48 17410 12.24 12.20 -15.85 POLYPHENYLENE TEREPHTHALTE 0017 10.76 21262 14.95 10.24 24582 17.28 10.43 15.61 POLYPHENYLENE TEREPHTHALTE 0017 10.76 21262 14.95 10.24 24582 17.28 10.43 15.61 POLYFETRAFLUOROETHYLEN 0017 10.657 22950 16.16 20.16 21.275 14.96 18.70 74.6 19.7 29.9 -3 21.255 17.17 156.6 1.073 15750 11.07 64.33 16.275 14.6 16.16 21.255 17.17 156.7 21.26 21.97 29.9 -3 29.9 -3 29.9 29.1 27.16 1.076 21.86 1.076 21.86 1.076 21.87 21.86 1.076 21.86 21.87 21.86 21.86 21.86 21.86 21.86 21.86 21.86 21.86	+		0.017	10.77	12728	8.95	70.16	7758	5.45		-39.05	-58.1
POLYNERNYLENEN 0017 10.76 21262 14.95 10.24 24582 17.28 10.43 15.61 POLYNERNYLENESULFDE 0017 10.7 10.7 16.53 27.73 262.68 4118 2.90 240.16 6.18 - POLYNEINVLENESULFDE 0017 10.67 23590 16.65 2.73 262.68 4118 2.90 240.16 6.18 - - 41.87 2 2 - 41.87 2 2 - 41.87 2 2 - 41.87 1 - 2 2 2 0 - 1 6 - 1 6 - 41.87 - 1 6 - 41.87 - 2 2 2 2 0 1 1 7 6 2 2 0 1 1 6 2 1 6 2 1 6 2 1 6 2 1 6 <td< td=""><td>-+-</td><td>POLIANIE SULI CINE</td><td>0.017</td><td>10.85</td><td>20689</td><td>14.55</td><td>12.48</td><td>17410</td><td>12.24</td><td>12.20</td><td>-15.85</td><td>-2.2</td></td<>	-+-	POLIANIE SULI CINE	0.017	10.85	20689	14.55	12.48	17410	12.24	12.20	-15.85	-2.2
POLYTETRAFILURNOCTHYLEN 0017 0013 8.63 3879 2.73 287.68 4118 2.90 240.16 6.18 POLYTETRAFILURNOCTHYLEN 0017 10.66 23510 16.53 17.17 13667 9.61 21.26 -41.87 POLYAMIDE - IMIDE 0017 10.67 22990 16.16 20.16 21.275 14.96 18.70 -746 POLYAMIDE - MIDE 0017 10.67 22990 16.16 20.16 21.275 14.96 18.70 -746 2991 - -746 201 21.75 21.48 201 21.75 21.48 201 21.75 21.48 201 21.75 21.48 201 21.75 21.48 21.75 21.46 201 21.75 21.48 21.75 22.14 21.76 21.87 22.14 21.75 22.14 21.175 22.25 201 11.75 22.01 11.76 22.32 201 21.75 22.14 21.86 21.175 22.16 2.31	+		0.017	10.76	21262	14.95	10.24	24582	17.28		15.61	1.9
POLYNIMIDE 0.017 10.667 23510 16.53 17.17 13667 9.61 21.26 -41.87 POLYAMIDE 0.017 10.67 22990 16.16 20.17 10.667 22990 16.16 21.275 14.96 18.70 -7.46 POLYAMIDE 0.017 10.73 15750 11.07 64.33 16.275 14.96 18.70 -7.46 POLYATIVETHERIMDE 0.017 10.73 15750 11.07 64.33 16.22 29.9 -7.46 19.63 -2.32 POLYATILENE TEREPHTHALATE 0.017 10.57 14.946 10.51 64.33 16.27 26.14 18.63 POLYMIDE - DF 0.017 10.953 14.946 10.51 62.20 11.75 26.14 16.63 POLYMIDE - DF 0.017 10.953 14.946 10.51 62.20 11.75 26.14 11.78 POLYMIDE - DF 0.017 10.963 7.46 19.693 -2.32 27.64 5.67	+-		013	8.63	3879	2.73	262.68		2.90		6.18	
POLYAMIDE 0017 10.67 22990 16 16 20 16 21275 14 96 18.70 -7.46 POLYAMIDE 0017 1073 15750 11 07 64 33 16222 11 40 39.76 239 -9 POLYETHERINDE 0017 1057 14062 9 90 16 33 16222 11 75 26.14 18.63 -9 POLYETHERINDE 0017 10.95 14.76 10.51 64 33 16222 11 75 26.14 18.63 -9 POLYBUTYLETHERETONE 0017 10.95 14.76 10.55 14.76 10.24 62.21 17.99 11.75 26.14 18.63 -2.32 -1 POLYBUTYLETHERETHERETONE 0017 10.90 14.360 10.10 7.46 19.69 -2.32 -1 17.78 -2.32 -1 11.78 -2.32 -1 10.793 10.67 7.64 7.64 5.67 -7.03 -2.32 -1 10.043 3.00 10.043 <t< td=""><td>-+-</td><td></td><td>0.017</td><td>10.69</td><td>23510</td><td>16.53</td><td>1717</td><td></td><td>9.61</td><td>21.26</td><td>-41.87</td><td>23.8</td></t<>	-+-		0.017	10.69	23510	16.53	1717		9.61	21.26	-41.87	23.8
POLYTAMIDE - Imide POLYETHERIMIDE 0017 1073 15750 11 07 64 33 16222 11 40 39 76 2.99 -2 2 2 2 2 2 2 2 2 2 2 2 2 2 1 7 6 33 1622 11 7 5 2 1 1 7 5 2 1 1 7 6 2 2 1 1 7 6 2 2 1 1 7 6 2 1 1 7 6 2 1 1 7 6 1 1 7 6 2 1 1 7 6 2 1 1 7 6 2 1 1 7 6 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	+		0.017	10.67	06622	1616	2016		14.96		-7.46	-7.2
POLYETHERIMUE 0016 10.57 14082 9 90 46 38 5230 11 75 26 14 1863 -4 POLYETHERMETORE 0016 10.57 14082 9 90 46 38 5230 11 75 26 14 18.63 -4 POLYBUTYLENE TEREPHTHALATE 0017 10.95 7240 5 09 162 40 6706 11 75 6201 11.78 - POLYBUTYLENE TEREPHTHALATE 0017 10.95 744 10.24 -6.84 -9.32 -1 11.78 - -2.32 -1 -2.32 -1 -1 -2.32 -1 -2.32 -1 -2.32 -1 -2.32 -1 -2.32 -1 -2.32 -1 -2.32 -1 -2.32 -1 -2.35 -1 -2.32 -1 -2.32 -1 -2.32 -1 -2.32 -1 -2.32 -1 -2.32 -1 -2.32 -1 -2.32 -1 -2.35 -1 -2.35	+		0.017	10 73	15750	11 07		!	11 40		2.99	-38.19
MOUTED FOLTE TREMMINE 0015 10.63 14946 10 51 62 28 16706 11 75 62 01 11 78 746 10 24 68 01 60 01 61 01 76 76 76 703 22 72 10 05 10 24 66 01 76 76 76 76 703 20 POLYIMIDE – DF 0017 10.69 12488 8.78 17.99 16.173 10.61 76.64 5.67 -7.03 -0.01 0.01 0.01 0.051			0016	10.57	14082	06 6		15230	11 75	 	18.63	-43.6
POLYBITYLENE TEREPHTHALATE 0017 1095 7240 5.09 162.40 6744 4.74 10.24 -6.84 -9 POLYBUTYLENE TEREPHTHALATE 0.023 14.76 10865 7.64 22.72 10613 7.46 19.69 -2.32 -1 POLYNIDE – DF 0.022 14.42 12209 8.58 17.99 11350 7.46 19.69 -2.32 -1 POLYMIDE – DF 0.017 10.90 14360 10.10 75.04 15173 10.67 72.64 5.67 - POLYMIDE – DF – ISO 0.017 10.69 12488 8.78 17.99 11350 7.64 5.67 - 7.03 - POLYMIDE – DF – ISO 0.017 10.69 12488 8.78 10.67 72.64 5.67 - 677 36.02 19.61 - 67 - 66 7.03 - 10.63 12073 8.49 36.02 19.61 - 66 7.00 10.043 36.	-			10.63	14946	10.51	62.28		11 75	62.01	11.78	
POLYBUTTERE ENERTITIONE 0.022 14.76 10865 7.64 22.72 10613 7.46 1969 -2.32 -1 POLYIMIDE – DF 0.022 14.42 12209 8.58 17.99 11350 7.46 19.69 -2.32 -1 POLYIMIDE – DF 0.022 14.42 12209 8.58 17.99 11350 7.96 16.54 -7.03 POLYIMIDE – DF 0.017 10.90 14360 10.10 75.04 15173 10.67 72.64 5.67 POLYIMIDE – DE – ISO 0.017 10.69 12488 8.78 10.35 12673 10.43 3.00 LIQUID CRYSTAL POLYMER 0.016 10.64 10093 7.10 81.30 12073 8.49 36.02 19.61 -5 ALL CALCULATIONS BASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. ALL TENSILE PULLS WERE AT AMBIENT CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS. 36.02 19.61 -5	+	PULTANTLE I NEMAE I UNE	2000	10.95	7240	5 09	162 40	1	4.74	10.24	-6.84	-93.7
FOLVIMINGE - DF -ISO 0.022 14.42 12209 8.58 17.99 11350 7.98 16.54 -7.03 - POLYIMIDE - DF -ISO 0.017 10.90 14360 10.10 75.04 15173 10.67 72.64 5.67 - POLYMIDE - DF -ISO 0.017 10.90 14360 10.10 75.04 15173 10.67 72.64 5.67 - POLYMIDE - DE VICINER 0.017 10.69 12488 8.78 10.35 12863 9.04 10.43 3.00 LIQUID CRYSTAL POLYMER 0.016 10.64 10093 7.10 81.30 12073 8.49 36.02 19.61 - ALL CALCULATIONS BASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. ALL TENSILE PULLS WERE AT AMBIENT CONDITION AND WITHIN 24HES AFTER AGING CONDITIONS. 36.02 19.61 - - 19.61 - - - - - - - - - - - - - - - - - - </td <td>-+-</td> <td></td> <td>0.023</td> <td>14.76</td> <td>10865</td> <td>7.64</td> <td>22.72</td> <td></td> <td>7 46</td> <td>19.69</td> <td>-2.32</td> <td></td>	-+-		0.023	14.76	10865	7.64	22.72		7 46	19.69	-2.32	
FOLVIMILE Construct of the second of the secon	+		0.022	14.42	12209	8.58	17.99	11350	7.98		-7.03	-8.1
Incluip Crystal PolyMeR 0.017 10.69 12488 8.78 10.35 12863 9.04 10.43 3.00 LLOUID CRYSTAL POLYMER 0.016 10.69 12488 8.78 10.35 12863 9.04 10.43 3.00 66 NYLON. POLYAMIDE 0.016 10.64 10093 7.10 81.30 12073 8.49 36.02 19.61 -5 ALL CALCULATIONS BASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. ALL TENSILE PULLS WERE AT AMBIENT CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS. ALL TENSILE PULLS WERE AT AMBIENT CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS. ALL TENSILE PULLS WERE AT AMBIENT CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS.	-		0.017	10.90	14360	10.10	75.04	15173	10.67	72.64	5.67	-3.2
Licence of the intervention 0.016 10.64 10093 7.10 81.30 12073 8.49 36.02 19.61 66 NYLON. POLYAMIDE ALL CALCULATIONS BASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. ALL TENSILE PULLS WERE AT AMBIENT CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS. N/A = TEST RAR DESTROYED BY CONDITIONS.			0.017	10.69	12488	8.78	10.35	12863	9.04	·	3.00	0.7
		66 NYLON. POLYAMIDE	0.016	10.64	10093	7.10	81.30	12073	8.49		19.61	-55.6
ALL TENSILE PULLS WERE AT AMBIENT CONDITION AND WITHIN 24HKS AFTEH AGING CONDITIONS. N/A = TEST BAR DESTROYED BY CONDITIONS.	1		ALL CALCULA	TIONS BASED	ON AN AVEF	AGE OF TWO	TENSILE TESTS.	EXCEPT NO.1	IS WHICH IS	5.		
			ALL TENSILE F	VULLS WERE / AR DESTROYE	NT AMBIENT (D BY CONDI	condition ai Tions.	WITHIN 24MHS	AFIEH AGIN		i,		

TENSILE PROPERTIES OF PLASTICS EXPOSED TO 22 ISO VG MIXED – ACID POLYOL ESTER AND HFC–134a (R–134a) [14 DAYS AT 150 DEG.C. (300 DEG.F.) AT 275–300 PSIA] TABLE F–11

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F-11

			INTIAL TESTING	NG		AFTE	AFTER AGING TESTING		% CHANGE AFTER AGING	TER AGING
TYPE	CROSS-SECTIONAL A	REA	TEN	TENSILE		TEN	TENSILE			
-	in^2	mm^2	lbm/in ^ 2	kg/mm ^ 2	kg/mm ~ 2 % ELONGATION	lbm/in ^ 2	kg/mm ^ 2	% ELONG.	TENSILE	% elong.
	0.017	10.65	11489	8.08	39.29	14893	10.47	170.28	29.64	333.37
	0.016	10.57	9754	6.86	22.60	9983	7.02	35.04	2.35	55.05
	0.017	10.76	8617	6.06	6.46	6741	4.74	69.9	-21.77	3.66
POI VVINYI IDENE FLUORIDE	0.016	10.30	7412	5.21	105.39	6561	4.61	114.96	-11.48	9.08
POI VPROPYI ENE	0.016	10.62	5397	3.79	372.76	4883	3.43	148.03	-9.53	-60.29
POI VARY SULFONE	0.017	10.77	12728	8.95	70.16	15628	10.99	28.43	22.78	-59.48
POI VETHVLENE TEREPHTHALATE	0.017	10.85	20689	14.55	12.48	6190	4.35	5.91	- 70.08	-52.68
POLYPHENYLENESULFIDE	0.017	10.76	21262	14.95	10.24	25318	17.80		19.08	00.0
POI VTETRAFLUOROETHYLENE	0.013	8.63	3879	2.73	N	3684	2.59	Q	-5.01	-12.10
POI VAMIDE - IMIDE	0.017	10.69	23510	16.53	17.17	21058	14.80	15.35	-10.43	- 10.55
POI VAMIDE - IMIDE	0.017	10.67	22990	16.16	20.16	47991	33.74		108.75	11.33
POLYETHERIMIDE	0.017	10.73	15750	11.07	64.33	16697	11.74		6.02	-21.05
MODIFIED POLYETHERIMIDE	0.016	10.57	14082	9.90		13995	9.84		-0.62	-37.18
POL VARYLETHERKETONE	0.016	10.63	14946	10.51	62.28	15963	11.22	N	6.80	-67.13
POLYBUTYLENE TEREPHTHALATE	0.017	10.95	7240	5.09	-		N/A		N/A	N/A
POLYIMIDE - DF	G. 023	14.76	10865	7.64	22.72	10653	7.49		-1.95	-18.54
POLYIMIDE - DE - ISO	0.022	14.42	12209	8.58	17.99	11121	7.82		-8.91	-11.38
POLY(ARYLETHERETHERKETONE)	0.017	10.90	14360	10.10	75.04	15439	10.85		7.51	-0.31
LIQUID CRYSTAL POLYMER	0.017	10.69	12488	8.78		13293	9.35		6.45	2.66
66 NYLON, POLYAMIDE	0.016	10.64	10093	7.10	81.30	12178	8.56	49.21	20.66	- 39.47

TENSILE PROPERTIES OF PLASTICS EXPOSED TO 32 ISO VG POLYPROPYLENE GLYCOL BUTYL MONO ETHER AND HFC-134a (R-134a) [14 DAYS AT 150 DEG.C. (300 DEG.F.) AT 275-300 PSIA] TABLE F-12

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				INTIAL TESTING	NG		AFTE	AFTER AGING TESTING	STING	% CHANGE A	% CHANGE AFTER AGING
0 N	TYPE	CROSS-SECTIONAL /	IONAL AREA	TEN	TENSILE		TEN	TENSILE			
		in^2	mm^2	lbm/in ^ 2	kg/mm ^ 2	% ELONGATION	lbm/in ^ 2	kg/mm ^ 2	% ELONG.	TENSILE	% ELONG.
-	POI VPHTHAI AMIDE	0.017	10.65	11489	8.08	39.29	14728	10.36	15.16	28.20	-61.42
	ACFTAI	0.016	10.57	9754	6.86	22.60	8122	5.71	23.23	-16.72	2.79
•	PHENOI IC	0.017	10.76	8617	90.9	6.46	10731	7.54	2.09	24.53	9.76
- c	POI WINY IDENE FLUORIDE	0.016	10.30	7412	5.21	105.39	6177	4.34	106.30	-16.66	0.86
	POI VPROPYI ENF	0.016	10.62	5397	3.79	372.76	4692	3.30	288.58	- 13.07	-22.58
σ	POI VARVI SI II FONF	0.017	10.77	12728	8.95	70.16	14899	10.47	21.46	17.05	-69.42
, c	POI VETHVI ENE TEREPHTHALATE	0.017	10.85	20689	14.55	12.48	6324	4.45	6.69	-69.44	-46.37
2	POI VPHENYI ENESUI FIDE	0.017	10.76	21262	14.95	10.24	24483	17.21	10.43	15.15	1.92
	POI VTETRAFLUOROETHYLENE	0.013	8.63	3879	2.73	262.68	3365	2.37	237.99	-13.23	-9.40
10	POI YAMIDE - IMIDE	0.017	10.69	23510	16.53	17.17	14044	9.87	22.83	-40.26	33.03
4	POI VAMIDE - IMIDE	0.017	10.67	22990	16.16	20.16	22411	15.76	19.29	-2.52	-4.30
5	POI YETHERIMIDE	0.017	10.73	15750	11.07	64.33	17031	11.97	58.07	8.13	
2 4	MODIFIED POLYETHERIMIDE	0.016	10.57	14082	9.90	46.38	15243	11.62	70.94	17.33	52.97
	POI YARYI FTHERKETONE	0.016	10.63	14946	10.51	62.28	16523	11.62	Y	10.56	-26.68
8	POI VBUTYLENE TEREPHTHALATE	0.017	10.95	7240	5.09	162.40	5182	3.64	8.27	-28.42	-94.91
0	POI VIMIDE - DF	0.023	14.76	10865	7.64	22.72	9188	6.46	19.69	-15.43	-13.34
		0.022	14.42	12209	8.58	17.99	11468	8.06	17.32	-6.07	-3.72
21	POI VIARYI ETHERETHERKETONE)	0.017	10.90	14360	10.10	75.04	14278	10.04	42.13	-0.57	-43.86
	I IOUID CRYSTAL POLYMER	0.017	10.69	12488	8.78	10.35	14307	10.06	11.02	14.56	
182	66 NYLON, POLYAMIDE	0.016	10.64	10093	7.10	81.30	11942	8.40	39.17	18.31	-51.82
				ON AN AVED		ALL CALCH ATIONS BASED ON AN AVERAGE OF TWO TENSILE TESTS	EXCEPT NO	EXCEPT NO 18 WHICH IS 5	5		
		ALL CALCULATIONS D	NULS WERE	T AMBIENT O			AFTER AGIN	G CONDITIO	S		
		N/A = TEST BARDEST	AR DESTROYE	ROYED BY CONDITIONS	rions.	ļ					

TENSILE PROPERTIES OF PLASTICS EXPOSED TO 32 ISO VG MODIFIED POLYGLYCOL AND HFC-134a (R-134a) [14 DAYS AT 150 DEG.C. (300 DEG.F.) AT 275-300 PSIA] TABLE F-13

D TYPE TENSILE TENSILE TENSILE TENSILE TENSILE TENSILE % ELONGATION Im/in*2 Kglmm*2 % ELONGATION Im/in*2 % ELONGA TENSILE % ELONGA TENSILE % ELONGATION Im/in*2 Kglmm*2 % ELONGA TENSILE % ELONGA TENSILE <th></th> <th></th> <th></th> <th></th> <th>NITIAL TESTING</th> <th>NG</th> <th></th> <th>AFTE</th> <th>AFTER AGING TESTING</th> <th>STING</th> <th>% CHANGE</th> <th>% CHANGE AFTER AGING</th>					NITIAL TESTING	NG		AFTE	AFTER AGING TESTING	STING	% CHANGE	% CHANGE AFTER AGING
POLYPHTHALMIDE Inf^2 mm^22 Imm^22 kg/mm^22 % ELONGATION bmm/m^22 % ELONGA TENSILE % ELONGA POLYPHTHALMIDE 0017 10.55 9754 666 5.39 307 </th <th>6</th> <th>TVPF</th> <th>CROSS-SECT</th> <th>REA</th> <th>TEN</th> <th>SILE</th> <th></th> <th>TEN</th> <th>SILE</th> <th></th> <th></th> <th></th>	6	TVPF	CROSS-SECT	REA	TEN	SILE		TEN	SILE			
POLYPHTHALAMIDE 0017 10.65 11489 8.08 39.29 14404 10.13 16.90 25.37 -55 ACETAL 0017 10.57 9764 6.86 22.60 3380 6.59 30.71 1.383 19 3 PHENDUCE 0017 10.76 5397 5.71 5.96 3392 7.46 10.3 7.46 1.383 13 1.333 1.373 1.1 1.383 1.333 1.233 1.1 1.1 1.333 1.1 1.1 1.333 1.1 1.1 1.333 1.1 1.1 1.333 1.1 1.1 1.333 1.1 1.1 1.333 1.1	i i	3	in^2	mm^2	IC	kg/mm ^ 2	% ELONGATION	lbm/in ^ 2	kg/mm ^ 2	% ELONG.	TENSILE	% ELONG.
ACT ACT Construction C	T		0.017	10.65	11489	8.08	39.29	14404	10.13		25.37	-51.90
PHENOLIC OPENAL 0017 (1) 1078 (1) 617 (1) 606 (1) 646 (1) 10252 (1) 721 (1) 1898 (1) 1898 (1) 1898 (1) 1898 (1) 1898 (1) 1898 (1) 1898 (1) 1893 (1)		PULTPHIMALAMIUE	0.016	10.57	9754	6.86	22.60	9380	6.59		-3.83	35.89
Predrynnould POLYPNOUL Predrynnould (1) 105.39 7412 5.21 105.39 6483 4.56 123.23 12.54 12.54		ACEIAL	2100	10.01	8617	6.06	6.46	10252	7.21	7.48	18.98	15.85
POLYPRIME Construction 10.07 10.02			0.016	10.30	7412	5.21	105.39	6483	4.56		-12.53	16.92
POLVARY DOLYARY SULFONE 0017 12728 8.95 70.16 14128 9.33 17.72 11.00 -7 POLVARY DOLYARY SULFONE 0.017 10.35 26689 14.35 10.24 64391 7.72 11.00 -66.20 -2 POLVARY DOLYTERFUNDETINLENE 0.017 10.35 25689 10.24 64391 17.24 11.02 -66.20 -2 POLVERHAULONESULFIDE 0.017 10.65 2550 16.53 17.17 15384 13.26 264.25 -465 -2 POLVENDE - IMDE 0.017 10.67 22930 16.16 20.16 10.57 20.61 -34.56 -34.56 -34.56 -34.56 -34.56 -34.56 -5.9 -465 -5.5 -44.55 -16.24 10.57 14.57 20.01 10.76 14.56 14.56 14.56 14.56 14.56 14.56 26.96 35.55 -44.55 25.98 5.55 -44.56 26.92 14.56 20.50 16.22 14.56			0.016	10.62	5397	3.79	372.76	5091	3.58	-	-5.54	-62.93
POLVETHYLENE TERPHTHALTE 0.017 10.86 20680 14.55 12.46 6994 4.92 9.06 -66.20 -23 POLVETHYLENE TERPHTHALTE 0.017 10.76 21262 14.95 10.24 24519 17.24 10.02 15.32 -26.20 -26.20 -26.20 -26.20 -26.25 -46.55 -46.55 -46.55 -46.55 -46.55 -46.55 -46.55 -46.55 -46.55 -46.55 -46.55 -46.55 -46.55 -46.55 -36.56 -36.55 -46.55 -56.45 -36.55 -46.55 -46.55 -46.55 -46.55 -46.55 -46.55 -36.55 -46.55 -46.55 -47.55 -40.55 -46.55 -47.55 <td< td=""><td></td><td>POI VARVI SLIFFONF</td><td>0.017</td><td>10.77</td><td>12728</td><td>8.95</td><td>70.16</td><td>14128</td><td></td><td></td><td>11.00</td><td>-74.7</td></td<>		POI VARVI SLIFFONF	0.017	10.77	12728	8.95	70.16	14128			11.00	-74.7
POLYPHENVERESULFIDE 0017 1076 21262 14.95 10.24 24519 17.24 11.02 13.32 -13.32 POLYPHENVEENESULFIDE 0.017 10.69 2873 2.73 262.68 3698 12.60 -34.56 -2 POLYETTAFLUOROETHYLENE 0.017 10.67 23510 16.35 27.17 52.68 10.82 24.55 -4.55		POI VETHYI ENE TEREPHTHALATE	0.017	10.85	20689	14.55	12.48	6994			-66.20	-27.4
POLYTETRAFLUGROETHYLENE 0013 8.63 3879 2.73 262.68 3696 2.60 284.25 -4.95 -4.95 POLYTETRAFLUGROETHYLENE 0.017 10.65 23510 16.53 17.17 15384 10.82 12.60 -34.55 -4.95 POLYAMIDE - IMIDE 0.017 10.57 15.50 11.07 64.33 16375 11.51 54.33 3.97 -1 POLYAMIDE - IMIDE 0.017 10.57 14946 10.51 64.33 16375 11.51 54.33 3.97 -1 MODIFIED PAINTETHERKETONE 0.016 10.57 14946 10.51 62.28 16.53 11.41 66.33 8.55 -4 POLYARIZETHERKETONE 0.017 10.63 14946 10.51 62.28 16.77 21.66 -3.55 -4 POLYBIUTYLENE TEREPHTHALTE 0.017 10.65 7.74 10.65 17.72 21.66 17.72 21.66 3.97 -1 POLYBIUTYLINE 0.017		POI VPHENYI FNESUL FIDE	0.017	10.76	21262	14.95	10.24	24519	-		15.32	8.
POLYAMIDE - IMDE 0017 10.69 23510 16.55 17.17 15384 10.82 12.50 -34.56 -23 POLYAMIDE - IMDE 0.017 10.67 22990 16.16 20.16 22081 15.52 20.08 -3.95 3 POLYAMIDE - IMDE 0.017 10.67 1476 22990 16.16 20.16 15.52 20.08 -3.95	-		0.013	8.63	3879	2.73	262.68	3698			-4.65	2.2
POLYAMIDE - IMIDE POLYAMIDE - IMIDE POLYAMIDE - IMIDE POLYAMIDE - IMIDE POLYETHERIKET ONE 0.017 10.57 15750 11.07 64.33 16.375 17.51 54.33 3.97 - 1 POLYAMIDE - IMIDE POLYETHERIKET ONE 0.017 10.57 15750 11.07 64.33 16.375 11.51 54.33 3.97 - 1 POLYARYCETHERKETONE 0.017 10.55 14946 5.05 46.33 16.376 11.51 54.33 3.97 - 1 POLYBUTYLENE TEREPHTHALATE 0.017 10.55 14.42 5.26 8.56 17.77 21.26 1.72 - 1 - 7 17 21.26 1.72 - 1 - 2 - 2 - 3 - 1 - 1 - 1 - 1 - 1 - 2 - 2 - 2 <t< td=""><td></td><td></td><td>0.017</td><td>10.69</td><td>23510</td><td>16.53</td><td>17.17</td><td>15384</td><td></td><td></td><td>-34.56</td><td>-26.6</td></t<>			0.017	10.69	23510	16.53	17.17	15384			-34.56	-26.6
POLYETHERMIDE 0.017 10.73 15750 11.07 64.33 16375 11.51 54.33 3.97 -1 MODIFED POLYETHERMIDE 0.016 10.57 14082 990 46.38 14863 10.45 25.98 5.55 -4 MODIFED POLYETHERMIDE 0.017 10.95 7240 5.09 162.40 N/A 1/A 1/A 64.33 3.97 -1 POLYARYLETHERKETONE 0.017 10.95 7240 5.09 162.40 N/A 1/A 1/A 66.93 3.97 -1 POLYBUTYLENE TEREPHTHALATE 0.017 10.95 7240 5.09 162.40 N/A 1/A			0.017	10.67	22990	16.16		22081	15.52		-3.95	E.0-
MODIFIED FUNCTION 0.016 10.57 14082 9.90 46.38 14863 10.45 25.58 5.55 -4 POLYARYLETHERKETONE 0.017 10.63 14946 10.51 62.28 16224 11.41 66.33 8.55 -4 POLYARYLETHERKETONE 0.017 10.95 7240 5.09 162.40 N/A	•		0.017	10.73	15750	11.07	64.33	16375	11.51		3.97	- 15.5
MOUNTED FOLTETHERKETONIE 0.016 10.63 14946 10.51 62.28 16224 11.41 66.93 8.55 POLYRPYLETHERKETONIE 0.017 10.95 7240 5.09 162.40 N/A			0.016	10.57	14082	06.6		14863	10.45		5.55	-43.9
FOLVBUTTLEMENT 0.017 10.95 7240 5.09 162.40 N/A			0.016	10.63	14946	10.51		16224	11.41	66.93		7.46
POLYNMIE T.77 21.26 1.72 - POLYNMIE 0.023 14.76 10865 7.64 22.72 11051 7.77 21.26 1.72 - POLYNMIE 0.017 10.90 14360 10.10 75.04 15552 10.93 80.71 8.30 POLYNMIE 0.017 10.90 14360 10.10 75.04 15552 10.93 80.71 8.30 POLYNME 0.017 10.69 12488 8.78 10.13 11.42 15.42 15.42 LIQUID CRYSTAL POLYMER 0.016 10.64 10093 7.10 81.30 11273 7.93 41.34 11.69 -4 ALL CALCULATIONS BASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. All 165 -4 11.69 -4 ALL TENSILE PULLS WERE AT AMBIENT CONDITION AND WITHIN 24HES AFTER AGING CONDITIONS. N/A = TEST BAR DESTROYED BY CONDITIONS. All 17.61 -11.69 -4		POLIANILE INENNE I UNE	0.017	10.95	7240	5.09	162.40	N/A	N/A	N/A		
FOLVIMIDE – Dr 0.012 14.42 12209 8.58 17.99 12524 8.81 17.72 2.58 - POLYIMIDE – ISO 0.017 10.90 14360 10.10 75.04 15552 10.93 80.71 8.30 POLYIMIDE – ISO 0.017 10.90 14360 10.10 75.04 15552 10.93 80.71 8.30 POLYIMIDE – ISO 0.017 10.69 12488 8.78 10.35 14414 10.13 11.42 15.42 LIQUID CRYSTAL POLYMER 0.016 10.64 10093 7.10 81.30 11273 7.33 41.34 11.69 -4 ALL CALCULATIONS BASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. All.34 11.69 -4 ALL TENSILE PULLS WERE AT AMBIENT CONDITION AND WITHIN 24HFIS AFTER AGING CONDITIONS. All.34 11.69 -4 ALL TEST BAR DESTROYED BY CONDITIONS. AND WITHIN 24HFIS AFTER AGING CONDITIONS. All.34 11.69 -4			0.023	14.76	10865	7.64	22.72	11051	77.7	21.26	1.72	-6.41
POLYTMILE Dr. 1 Dr. 2 Dr. 2 Dr. 2 Dr. 2			0.022	14.42	12209	8.58	17.99	12524	8.81	17.72	2.58	- 1.5
FOLIATION CONTRIMINATION CONTRIMINATION CONTRIMINATION 10.69 12488 8.78 10.35 1414 10.13 11.42 15.42 LIQUID CRYSTAL 0.016 10.64 10.093 7.10 81.30 11273 7.93 41.34 11.69 66 NYLON, POLYAMIDE 0.016 10.64 10093 7.10 81.30 11273 7.93 41.34 11.69 ALL CALCULATIONS BASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.18 WHICH IS 5. ALL TENSILE PULLS WERE AT AMBIENT CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS. ALL TEST BAR DESTROYED BY CONDITIONS.	1	POLYIMIDE - UT - 130	0.017	10.90	14360	10.10	75.04	15552	10.93		8.30	7.5
LINULUCITATION 0.016 10.64 10.093 7.10 81.30 11.273 7.93 41.34 11.69 66 NYLON, POLYAMIDE ALL CALCULATIONS BASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.18 WHICH IS 5. ALL CALCULATIONS BASED ON AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.18 WHICH IS 5. ALL TENSILE PULLS WERE AT AMBIENT CONDITION AND WITHIN 24 HPS AFTER AGING CONDITIONS. ALL TEST BARDESTROYED BY CONDITIONS.	_	TUCI ANI LETITETIC TETIC	017	10.69	12488	8.78	10.35	14414	10.13		15.42	10.2
		66 NYLON, POLYAMIDE	0.016	10.64	10093	7.10	81.30	11273	7.93		11.69	-49.1
ALL TENSILE FULLS WERE AT AMBILINE CONDITIONS AND A THE FULL AND A THE AND A				TIONS BASED	ON AN AVER		TENSILE TESTS. D WITHIN 24HBS	EXCEPT NO. AFTER AGIN	18 WHICH IS G CONDITIO	5. NS.		
			N/A = TEST B	AR DESTROYE	D BY CONDIT	TIONS.						

TENSILE PROPERTIES OF PLASTICS EXPOSED TO 32 ISO VG POLYPROPYLENE GLYCOL DIOL AND HFC-134a (R-134a) [14 DAYS AT 150 DEG.C. (300 DEG.F.) AT 275-300 PSIA] TABLE F-14

ETENSILEManin 2 KeLONGATIONInnin 2 KelonG.TENSILEKelonG.TENSILEKelonG.TENSILEKelonG.TENSILEKelonG.TENSILEKelonG.TENSILEKelonG.TENSILEKelonG.TENSILEKelonG.TENSILEKelonG.KelonG.TENSILEKelonG.KelonG.TENSILEKelonG.KelonG.TENSILEKelonG.TENSIGETENSILEKelonG.TENSILE <th>E TENSILE Sellong TENSILE J/mm^2 % ELONGATION İbm/in^2 kg/mm^22 % ELONG. TensiLE % EL J/mm^2 % ELONGATION İbm/in^2 kg/mm^22 % ELONG. TensiLE % EL J/mm2 % ELONGATION İbm/in^2 kg/mm^22 % ELONG. TensiLE % EL 8.03 39.23 15164 10.66 15.75 3199 139 6.06 6.46 8497 5.97 3.94 -1136 13.06 3.79 372.76 6603 10.53 6.371 4.48 87.40 -1134 14.95 112.4 17.26 8.66 10.13 1346 14.95 10.24 24547 17.26 8.66 10.13 16.16 20.16 23518 16.575 -12.86 13.3 16.16 20.16 23513 17.70 30.79 2.36 16.16 20.16 23513 16.70 17.26 8.66 <</th> <th>•</th> <th></th> <th></th> <th></th> <th>INTIAL TESTING</th> <th>DN</th> <th></th> <th>AFTEI</th> <th>AFTER AGING TESTING</th> <th>TING</th> <th>% CHANGE A</th> <th>% CHANGE AFTER AGING</th>	E TENSILE Sellong TENSILE J/mm^2 % ELONGATION İbm/in^2 kg/mm^22 % ELONG. TensiLE % EL J/mm^2 % ELONGATION İbm/in^2 kg/mm^22 % ELONG. TensiLE % EL J/mm2 % ELONGATION İbm/in^2 kg/mm^22 % ELONG. TensiLE % EL 8.03 39.23 15164 10.66 15.75 3199 139 6.06 6.46 8497 5.97 3.94 -1136 13.06 3.79 372.76 6603 10.53 6.371 4.48 87.40 -1134 14.95 112.4 17.26 8.66 10.13 1346 14.95 10.24 24547 17.26 8.66 10.13 16.16 20.16 23518 16.575 -12.86 13.3 16.16 20.16 23513 17.70 30.79 2.36 16.16 20.16 23513 16.70 17.26 8.66 <	•				INTIAL TESTING	DN		AFTEI	AFTER AGING TESTING	TING	% CHANGE A	% CHANGE AFTER AGING
kg/mm \sim 2% ELONGATIONIbm/in \sim 2kg/mm \sim 2% ELONG.TENSILE% ELONG.kg/mm \sim 28.03392.291516.410.6615.7531.996.666.8622.6079925.622.4.21-18.066.106.1027.708.9374.4.88.7.40-11.399.57.01105.393.2838.7.40-11.349.57.012.560018.0038.7.8101.1314.5512.2.4139529.817.10-13.4814.9512.2.4139529.817.12-13.4814.9512.2.4139529.816.10-32.5614.9512.73265.6838332.70256.0214.9511.07265.6018.0030.7916.16256.0011.70256.02-11.17273262.6838332.70256.02-12.8616.166.5311.7030.7918.1316.166.5311.7030.7918.1316.1662.28166.3611.7030.7918.1316.1622.72107687.5719.292.3016.105.0916.5411.7030.7918.1316.24165.3616.5616.5616.5618.1316.1762.28166.3611.7030.7918.1316.187.6410.7910.7917.7030.7916.1075.0410.790 <t< th=""><th>m ~ 2 % ELONGATION Ibm/in ~ 2 kg/mm ~ 2 % ELONG. TENSILE % ELONG. 6.86 2.26 7992 5.57 31.99 31.99 6.86 6.46 8497 5.97 3.94 -1.39 5.21 105.39 6371 4.48 87.40 -14.04 5.21 372.76 4669 3.28 386.22 -13.39 3.79 7016 25600 18.00 38.78 101.13 14.55 112.44 13952 9.81 6.10 -32.56 14.95 10.24 24547 17.26 88.26 -11.77 2.73 262.68 3833 17.72 88.650 -11.77 2.73 262.68 11.77 256.62 -11.77 16.53 16.53 19.29 2.30 6.28 16.107 64.33 167.40 11.77 56.50 -11.77 509 16.53 16.53 19.29 2.30 2.30</th><th>TVDE CROSS-SECTIONAL AREA</th><th></th><th></th><th>· · · · · ·</th><th>TEN</th><th>SILE</th><th></th><th>TEN</th><th>SILE</th><th></th><th></th><th>i</th></t<>	m ~ 2 % ELONGATION Ibm/in ~ 2 kg/mm ~ 2 % ELONG. TENSILE % ELONG. 6.86 2.26 7992 5.57 31.99 31.99 6.86 6.46 8497 5.97 3.94 -1.39 5.21 105.39 6371 4.48 87.40 -14.04 5.21 372.76 4669 3.28 386.22 -13.39 3.79 7016 25600 18.00 38.78 101.13 14.55 112.44 13952 9.81 6.10 -32.56 14.95 10.24 24547 17.26 88.26 -11.77 2.73 262.68 3833 17.72 88.650 -11.77 2.73 262.68 11.77 256.62 -11.77 16.53 16.53 19.29 2.30 6.28 16.107 64.33 167.40 11.77 56.50 -11.77 509 16.53 16.53 19.29 2.30 2.30	TVDE CROSS-SECTIONAL AREA			· · · · · ·	TEN	SILE		TEN	SILE			i
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6.06 6.46 8497 5.97 3.94 -1.38 5.21 105.39 6371 4.48 87.40 -14.04 5.21 105.39 6371 4.48 87.40 -14.04 5.21 105.39 6371 4.48 87.40 -14.04 5.21 10.5.39 6371 25600 18.00 38.78 101.13 8.95 70.16 25600 18.00 38.78 101.13 14.95 12.4. 13952 9.81 6.10 -32.56 14.95 10.24 24547 17.26 8.66 15.45 16.16 2016 23518 16.53 19.29 2.30 11.07 64.33 16740 11.77 56.50 6.28 10.51 64.33 16740 11.77 56.50 6.28 10.51 64.33 16740 11.77 56.50 6.28 10.51 64.33 16740 11.77 56.50 6.10 <	6.06 6.46 8497 5.97 3.94 -1.38 5.21 105.39 6371 4.48 87.40 -14.04 5.21 105.39 6371 4.48 87.40 -13.48 3.79 372.76 4669 3.28 386.22 -13.48 8.95 70.16 25600 18.00 38.78 101.13 14.55 12.4. 13952 9.81 6.10 -32.56 14.95 10.24 24547 17.26 8.66 1.17 2.73 262.68 3833 2.70 256.02 -11.17 2.73 262.68 3833 1.1.70 2.36 2.36 16.53 17.17 20485 11.70 30.79 18.13 16.14 0.20.16 5347 11.70 30.79 18.13 10.51 64.3 15347 11.70 30.79 18.13 10.51 65.90 16.14 10.170 2.30 11.31			10.57	1	9754	6.86	22.60	7992	5.62	24.21	-18.06	
5.21 105.39 6371 4.48 87.40 -14.04 3.79 372.76 4669 3.28 38.22 -13.48 3.79 372.76 4669 3.28 $38.6.22$ -13.48 8.95 70.16 25600 18.00 38.78 101.13 8.95 $12.4.1$ 13952 9.81 6.10 -32.56 14.95 $12.4.1$ 13952 9.81 6.10 -32.26 14.95 10.24 23952 9.81 6.10 -32.26 16.53 17.17 20485 14.40 15.75 -12.86 16.16 20.16 23518 16.53 19.29 2.30 16.16 20.16 23518 16.53 19.29 2.30 10.051 64.33 16740 11.77 56.50 6.28 10.51 64.33 16740 11.77 56.50 6.28 10.51 62.28 16347 11.70 30.79 18.13 10.51 62.28 16336 11.70 30.79 18.13 7.64 22.72 10780 7.57 4.72 -55.65 7.64 7.504 10.766 7.55 4.72 -55.65 10.10 8.58 10.036 7.56 4.72 -55.65 7.10 8.74 9.28 9.28 14.70 7.10 8.19 9.29 8.74 9.26 14.70 7.10 8.14 10.42 9.26 14.70	5.21 105.39 6371 4.48 87.40 -14.04 3.79 372.76 4669 3.28 386.22 -13.48 3.79 70.16 25600 18.00 38.78 101.13 14.55 12.43 13952 9.81 6.10 -32.56 14.55 12.43 13952 9.81 6.10 -32.56 14.55 10.24 24547 17.26 8.66 15.45 16.53 10.24 24547 11.72 256.02 -11.17 2.73 262.68 3833 2.770 256.02 -12.86 16.16 6.33 16.17 20485 11.77 56.50 2.30 16.16 6.43 15740 11.77 56.50 2.30 16.16 6.43 15740 11.70 30.79 18.13 10.51 6.13 155347 11.70 30.79 18.13 10.51 6.22 10.786 7.57 16.14 -0.91 5.09 16.24 32.14 10.26 4.49 7.64 22.72 10786 7.57 40.75 -55.65 7.10 81.30 10.28 40.75 -6.11.70 8	0.0.0		10.01		8617	6.06	6.46	8497	5.97	3.94	-1.39	
3.79 372.76 4669 3.28 386.22 -13.48 8.95 70.16 25600 18.00 38.78 101.13 8.95 70.16 25600 18.00 38.78 101.13 14.55 12.4.1 13952 9.81 6.10 -32.56 14.95 10.24 24547 17.26 8.66 15.45 14.95 17.17 20485 14.40 15.75 -12.86 16.16 20.16 23518 16.53 19.29 2.30 11.07 64.33 16740 11.77 56.50 6.28 10.51 64.33 16740 11.77 56.50 6.28 10.51 64.33 16740 11.77 56.50 6.28 10.51 62.28 15347 11.70 30.79 18.13 10.51 62.28 15347 11.70 30.79 18.13 10.51 62.28 16636 7.57 16.14 -0.91 7.64 22.72 10766 7.55 16.14 -0.91 7.64 75.04 15004 7.55 40.75 -11.70 8.78 10.10 8.74 9.25 16.14	3.79 372.76 4669 3.28 386.22 -13.48 8.95 70.16 25600 18.00 38.78 101.13 14.55 12.4.1 13952 9.81 6.10 -32.56 14.55 12.4.1 13952 9.81 6.10 -32.56 14.55 10.24 24547 17.26 8.66 -11.77 2.73 262.68 3833 2.70 256.02 -13.48 16.15 2.0.16 23518 16.53 19.20 -11.77 16.16 6.33 16.740 11.77 56.50 6.236 16.16 6.4.33 16.740 11.77 56.50 6.236 10.51 6.4.33 15740 11.77 56.50 6.236 10.51 6.228 16.14 -0.91 13.1 10.51 6.22.2 17.06 7.57 4.49 7.64 22.72 10766 7.57 4.075 4.49 10.10 7.50 10.42 32.48 23.15 4.49 7.10 81.30 <td>0.00</td> <td></td> <td>10.30</td> <td>1</td> <td>7412</td> <td>5.21</td> <td>105.39</td> <td>6371</td> <td>4.48</td> <td>87.40</td> <td>-14.04</td> <td></td>	0.00		10.30	1	7412	5.21	105.39	6371	4.48	87.40	-14.04	
8.95 70.16 25600 18.00 38.78 101.13 14.55 12.4.1 13952 9.81 6.10 -32.56 14.95 12.4.1 13952 9.81 6.10 -32.56 14.95 10.24 24547 17.26 8.66 15.45 15.3 17.17 20485 14.40 15.75 -12.86 16.16 2016 23518 16.53 19.29 2.30 11.07 64.33 16740 11.77 56.50 6.28 990 46.38 15347 11.70 30.79 18.13 10.51 62.28 15347 11.70 30.79 18.13 10.51 62.28 15347 11.70 30.79 18.13 10.51 62.28 16.33 11.70 30.79 18.13 7.64 22.72 10766 7.55 4.72 -55.65 7.64 7.50 16.14 10.45 9.25 4.49	8.95 70.16 25600 18.00 38.78 101.13 14.55 12.5.1 13952 9.81 6.10 -32.56 2.73 262.68 3833 2.70 256.02 1.5.45 16.53 17.17 20485 14.40 15.75 -12.86 16.16 20.16 23518 16.53 19.20 2.30 16.17 20368 11.77 265.02 2.30 16.16 6.33 16.740 11.77 56.50 2.30 16.16 6.33 16.740 11.77 56.50 2.30 16.17 20485 11.77 30.79 18.13 10.51 6.23 10.768 7.57 4.72 -56.65 7.64 22.72 10780 7.57 40.75 4.49 10.10 7.57 16.14 -0.91 -0.91 8.78 10.30 7.58 12.80 -11.70 8.78 10.32 32.48 23.15			10.62	1	5397	3.79	372.76	4669	3.28	386.22	-13.48	
14.55 12.4.1 13952 9.81 6.10 -32.56 14.95 10.24 24547 17.26 8.66 15.45 14.95 10.24 24547 17.26 8.66 15.45 2.73 262.68 3833 2.70 256.02 -1.17 2.73 20.16 23518 16.53 19.29 2.30 11.07 64.33 16740 11.77 56.50 6.28 11.07 64.33 16740 11.77 56.50 6.28 10.51 64.33 16740 11.70 30.79 18.13 10.51 62.28 16536 11.70 30.79 18.13 10.51 62.28 16636 11.70 30.79 18.13 10.51 62.28 16636 7.57 16.14 -0.91 7.64 22.72 10766 7.57 16.14 -0.91 7.64 75.04 15004 10.55 40.75 4.17 8.78 10.10 7.51 15004 10.55 4.17 7.10 81.30 1249 8.74 32.48 23.15	14.55 12.4: 13952 9.81 6.10 -32.56 14.95 10.24 24547 17.26 8.66 15.45 2.73 262.68 3833 2.70 256.02 -1.17 2.73 262.68 3833 2.70 256.02 -1.17 16.16 20.16 23518 16.53 19.29 2.30 16.16 20.16 23518 16.53 11.77 56.50 2.30 10.51 64.33 15740 11.77 30.79 18.13 10.51 62.38 15347 11.70 30.79 18.13 10.51 62.28 16.63 17.77 56.56 6.28 7.64 22.72 10766 7.57 16.14 -0.91 7.64 22.72 10766 7.57 16.14 -0.91 8.76 10.10 7.58 12.80 -11.70 8.78 10.30 7.58 23.15 4.49 7.10 81.30 12.429 8.74 32.48 23.15			10.77		12728	8.95	70.16	25600	18.00	38.78	101.13	
14.95 10.24 24547 17.26 8.66 15.45 2.73 262.68 3833 2.70 256.02 -1.17 16.53 17.17 20485 14.40 15.75 -12.86 16.16 2016 23518 16.53 19.29 2.30 11.07 64.33 16740 11.77 56.50 6.28 990 46.38 15347 11.77 56.50 6.28 10.51 62.28 16337 11.70 30.79 18.13 10.51 62.28 15347 11.70 43.11 11.31 7.64 22.72 10766 7.57 16.14 -0.91 7.64 22.72 10780 7.56 4.72 -5565 8.58 17.99 10780 7.57 4.72 -5566 7.10 8.74 9.26 4.49 -11.70 7.61 10.35	14.95 10.24 24547 17.26 8.66 19.45 2.73 262.68 3833 2.70 256.02 -1.17 2.73 262.68 3833 2.70 256.02 -1.17 16.16 20.16 23518 16.53 19.29 2.30 16.16 2.0.16 23518 16.53 19.29 2.30 10.07 64.33 15740 11.77 56.50 6.23 10.51 62.28 16.65 11.70 30.79 18.13 10.51 62.28 16.16 30.79 18.13 10.51 62.28 10766 7.57 16.14 -0.91 7.64 22.72 10766 7.57 16.14 -0.91 8.76 10.10 7.57 16.14 -0.91 -0.91 8.78 10.30 7.56 4.0.75 4.49 10.10 7.50 10.42 9.25 18.62 8.78 10.30 10.55 40.75 4.49 7.10 81.30 12.429 8.74 32			10.85		20689	14.55	12.4.1	13952	9.81	6.10	-32.56	
2.73 262.68 3833 2.70 256.02 -1.17 16.16 17.17 20485 14.40 15.75 -12.86 11.07 64.33 16740 11.77 56.50 6.28 11.07 64.33 16740 11.77 56.50 6.28 990 46.38 15347 11.70 30.79 18.13 990 46.38 15347 11.70 30.79 18.13 10.51 62.28 16636 11.70 30.79 18.13 7.09 162.40 3211 2.26 4.72 -55.65 7.64 22.72 10786 7.57 16.14 -0.91 7.64 17.99 10786 7.57 16.14 -0.91 7.64 17.99 10786 7.57 16.14 -0.91 7.6 17.99 10786 7.55 40.75 4.49 7.10 81.78 10.42 9.25 18.62 7.10 81.30 12429 8.74 32.48 23.15	2.73 262.68 3833 2.70 256.02 -1.17 16.53 17.17 20485 14.40 15.75 -12.86 16.16 20.16 23518 16.53 19.29 2.30 11.07 64.33 16740 11.77 56.50 6.28 9.90 46.38 15347 11.70 30.79 18.13 9.90 46.38 15347 11.70 30.79 18.13 9.90 46.38 15347 11.70 30.79 18.13 9.91 10.51 62.28 15.36 18.13 10.51 62.28 15.75 16.14 -0.91 7.64 22.72 10780 7.57 16.14 -0.91 7.63 10.10 7.58 12.80 -11.70 8.74 10.35 14814 10.42 9.25 18.62 10.10 7.10 81.30 12429 8.74 32.48 23.15 7.10 81.30 12429 8.74 32.48 23.15 7.10 81.30 1	0.017		10.76	1	21262	14.95	10.24	24547	17.26		15.45	
16.53 17.17 20485 14.40 15.75 -12.00 16.16 20.16 23518 16.53 19.29 2.30 11.07 64.33 16740 11.77 36.50 6.28 990 46.38 15347 11.70 30.79 18.13 990 46.38 15347 11.70 30.79 18.13 10.51 62.28 16636 11.70 43.11 11.31 7.09 162.40 3211 2.26 4.72 -55.65 7.64 22.72 10766 7.57 16.14 -0.91 7.64 7.50 15.04 10.55 40.75 4.49 8.58 17.99 10780 7.56 12.80 -11.70 8.78 10.10 7.55 40.75 4.49 7.10 8.78 10.35 14814 10.42 9.26 18.62 7.10 81.30 12429 8.74 32.48 23.15	16.53 17.17 20485 14.40 15.75 -12.00 16.16 20.16 23518 16.53 19.29 2.30 11.07 64.33 16.740 11.77 56.50 6.28 9.90 46.38 15347 11.70 30.79 18.13 9.90 64.33 15347 11.70 30.11 11.31 10.51 62.28 16.36 17.70 43.11 11.31 10.51 62.24 37.57 16.14 -0.91 56.65 7.64 22.72 10766 7.57 16.14 -0.91 8.58 17.99 10780 7.58 12.80 -11.70 8.74 32.48 32.48 23.15 4.49 7.10 81.30 12429 8.74 32.48 23.15 7.10 81.30 12429 8.74 32.48 23.15			8.63		3879	2.73	262.68	3833	2.70	~	-1.17	
16.16 20.16 23518 16.53 19.29 2.30 11.07 64.33 16740 11.77 56.50 6.28 990 46.38 15347 11.77 56.50 6.28 990 46.33 16740 11.77 56.50 6.28 10.51 62.28 16636 11.70 43.11 11.31 7.64 22.72 10766 7.57 16.14 -0.91 7.64 22.72 10766 7.58 12.80 -11.70 8.58 17.99 10780 7.58 12.80 -11.70 10.10 75.04 15004 10.55 40.75 4.49 7.10 81.74 9.74 9.26 18.62 7.10 81.30 12429 8.74 32.48 23.15	16.16 20.16 23518 16.53 19.23 56.50 6.28 11.07 64.33 16740 11.77 56.50 6.28 9.90 46.38 15347 11.77 56.50 6.28 9.90 46.38 15347 11.70 30.79 18.13 10.51 62.28 16.56 4.72 -56.65 13.11 7.64 22.72 10766 7.57 16.14 -0.91 7.64 22.77 10780 7.58 12.80 -11.70 8.58 17.99 10780 7.58 12.80 -11.70 10.10 75.04 15004 10.42 9.25 18.62 8.78 10.35 14814 10.42 9.25 18.62 7.10 81.30 12429 8.74 32.48 23.15 7.10 81.30 12429 8.74 32.48 23.15	0.017		10.69	1	23510	16.53	17.71	20485	14.40		-12.00	
11.07 64.33 16/40 11.17 30.79 18.13 9.90 46.38 15347 11.70 30.79 18.13 10.51 62.28 16636 11.70 30.79 18.13 7.03 5.09 162.40 3211 2.6 4.72 -55.65 7.64 22.72 10766 7.57 16.14 -0.91 7.64 22.72 10766 7.58 12.60 -11.70 8.58 17.99 10766 7.58 12.60 -11.70 10.10 75.04 15004 10.55 40.75 4.49 7.10 81.74 10.42 9.25 18.62 7.10 81.30 12429 8.74 32.48 23.15	11.07 64.33 10740 11.17 30.20 18.13 9.90 46.38 15347 11.70 30.11 11.31 10.51 62.28 15347 11.70 30.11 11.31 7.69 16.24 3211 2.26 4.72 -55.65 7.64 22.72 10766 7.57 16.14 -0.91 8.58 17.99 10780 7.58 12.80 -11.70 8.74 10.10 7.58 12.80 -11.70 8.74 10.62 9.25 40.75 4.49 7.10 81.30 12429 8.74 32.48 23.15 7.10 81.30 12429 8.74 32.48 23.15 7.10 81.30 12429 8.74 32.48 23.15 7.10 81.30 12429 8.74 32.48 23.15	0.017		10 - 7	1	22990	16.16	20.16	23518	50.01 77 11		A 28	
9.90 49.30 10.51 66.36 11.70 43.11 11.31 10.51 62.28 16636 11.70 43.11 11.31 5.09 162.40 3211 2.2 4.72 -55.65 7.64 22.72 10766 7.57 16.14 -0.91 8.58 17.99 10780 7.58 12.80 -11.70 8.58 17.99 10780 7.58 40.75 4.49 10.10 75.04 15004 10.42 9.25 18.62 8.78 10.35 14814 10.42 9.25 18.62 7.10 81.30 12429 8.74 32.48 23.15	9.30 40.30 10.34 11.70 43.11 11.31 10.51 62.28 16636 11.70 43.11 11.31 7.69 162.24 321 12.80 -55.65 -55.65 7.64 22.72 10766 7.57 16.14 -0.91 8.58 17.99 10780 7.58 12.80 -11.70 8.74 7.504 15004 10.55 40.75 4.49 10.10 75.04 12429 8.74 32.48 23.15 7.10 81.30 12429 8.74 32.48 23.15 7.10 81.30 12429 8.74 32.48 23.15 7.10 81.30 12429 8.74 32.48 23.15 7.10 81.30 12429 8.74 32.48 23.15 7.10 81.30 12429 8.74 32.48 23.15 7.10 81.30 12429 8.74 32.48 23.15 7.10 81.30 12429 5.7 10.05 10.05 7.10 <td>0.017</td> <td></td> <td>10.73</td> <td>- 1</td> <td>15750</td> <td>11.07</td> <td>04.33 46.90</td> <td>10/40</td> <td>11.11</td> <td></td> <td>18.13</td> <td></td>	0.017		10.73	- 1	15750	11.07	04.33 46.90	10/40	11.11		18.13	
10.31 02.20 3211 2.26 4.72 -55.65 5.09 162.40 3211 2.26 4.72 -0.91 7.64 2.272 10766 7.57 16.14 -0.91 8.58 17.99 10780 7.58 12.80 -11.70 10.10 75.04 15004 10.55 40.75 4.49 7.10 81.78 10.35 14814 10.42 9.25 18.62 7.10 81.30 12429 8.74 32.48 23.15	10.31 00.2.00 162.40 3211 2.26 4.72 -55.65 7.64 22.72 10766 7.57 16.14 -0.91 8.58 17.99 10786 7.58 12.80 -11.70 8.76 7.504 15004 10.55 40.75 4.49 10.10 75.04 15004 10.42 9.25 18.62 7.10 81.30 12429 8.74 32.48 23.15 7.10 81.30 12429 8.74 32.48 23.15 7.10 81.30 12429 8.74 32.48 23.15 7.10 81.30 12429 8.74 32.48 23.15	DE		19.57	i	14082	0.5	40.00	16631	11 70		11.31	
7.64 22.72 10766 7.57 16.14 -0.91 8.56 17.99 10780 7.58 12.80 -11.70 8.78 10.10 75.04 15004 10.55 40.75 4.49 8.78 10.35 14814 10.42 9.25 18.62 7.10 81.30 12429 8.74 32.48 23.15	7.64 22.72 10766 7.57 16.14 -0.91 8.58 17.99 10780 7.58 12.80 -11.70 8.58 75.04 15004 10.55 40.75 4.49 10.10 75.04 15004 10.42 9.25 18.62 8.78 10.35 14814 10.42 9.25 18.62 7.10 81.30 12429 8.74 32.48 23.15 7.10 81.30 12429 8.74 32.48 23.15 7.10 81.30 12429 8.74 32.48 23.15 7.10 81.30 12429 8.74 32.48 23.15 7.10 81.30 12429 8.74 32.48 23.15 7 7.10 8.74 32.48 23.15	POLYARYLETHERKETONE 0.016		10.63		7940	10.01 50.5		3211	2.26		-55.65	
8.58 17.99 10780 7.58 12.80 -11.70 10.10 75.04 15004 10.55 40.75 4.49 8.78 10.35 14814 10.42 9.25 18.62 7.10 81.30 12429 8.74 32.48 23.15	8.58 17.99 10780 7.58 12.80 -11.70 10.10 75.04 15004 10.55 40.75 4.49 8.78 10.10 75.04 15004 10.55 40.75 4.49 8.78 10.35 14814 10.42 9.25 18.62 18.62 7.10 81.30 12429 8.74 32.48 23.15 23.15 7.10 81.30 12429 8.74 32.48 23.15 23.15 7.10 81.30 12429 8.74 32.48 23.15 23.15 7.10 81.30 12429 8.74 32.48 23.15 23.15 710 And TensilLE TESTS. EXCEPT NO.16 WHICH IS 5. 10.0 NS. 10.110 NS. 10.10 NS.			14 76		10865	7.64		10766	7.57	16.14	-0.91	
10.10 75.04 15004 10.55 40.75 4.49 8.78 10.35 14814 10.42 9.25 18.62 7.10 81.30 12429 8.74 32.48 23.15	10.10 75.04 15004 10.55 40.75 4.49 8.78 10.35 14814 10.42 9.25 18.62 7.10 81.30 12429 8.74 32.48 23.15 7.10 81.30 12429 8.74 32.48 23.15 7.10 81.30 12429 8.74 32.48 23.15 7.10 81.30 12429 8.74 32.48 23.15 7 710 8.74 32.48 23.15			14.42		12209	8.58		10780	7.58		-11.70	
8.78 10.35 14814 10.42 9.25 18.62 7.10 81.30 12429 8.74 32.48 23.15	8.78 10.35 14814 10.42 9.25 18.62 7.10 81.30 12429 8.74 32.48 23.15 7.10 TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. 10.00.000 10.000			10.90		14360	10.10		15004	10.55	Y	4.49	
7.10 81.30 12429 8.74 32.48 23.15	7.10 81.30 12429 8.74 32.48 23.15 35 TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. TION AND WITHIN 24HRS AFTER AGING CONDITIONS.			10.69	1	12488	8.78	10.35	14814	10.42		18.62	
	N AN AVERAGE OF TWO TENSILE TESTS. EXCEPT NO.16 WHICH IS 5. AMBIENT CONDITION AND WITHIN 24HRS AFTER AGING CONDITIONS. BY CONDITIONS.			10.64		10093	7.10		12429	8.74		C1.62	

TENSILE PROPERTIES OF PLASTICS EXPOSED TO 32 ISO VG ALKYLBENZENE AND HCFC-142b (142b) [14 DAYS AT 150 DEG.C. (300 DEG.F.) AT 275-300 PSIA] TABLE F-15

	TER AGING		SNO 13		-62.42	- 25.09	-26.83	34.11	-14.82	-1414	-27.44	-5.77	-13.44	-18.58	-3.32	-42.17	-21.22	-11.82	-92.24	100	1.02-	-12.41	-3.20	-4.94	-58.11					
	% CHANGE AFTER AGING		TENCILE		29.53	-15.65	20.18	PA 8-	10.86	13 84	-21 79	16.40	-0.58	8 6-	-617	5.81	6.81	A 77	11 40		0/.2-	-0.81	3.98	15.86	21.55					
					14.76	16.93	4.72	141 24	C1 L + C	AC 110			357.36	a0 c t	10 40	00 75	26.54						72.64	9.84	34.06		j.	NS.		
	AFTER AGING TESTING			kg/mm 2	10.46	5.78	7 28	22.1	5.4	00.0	00-	17 40	27.11		L						7.43		10.50	10.17	8.63		16 WHICH IS	IG CONDITIO		
	AFTE	TENOILE		2 ~ ui/mqi	14882	8227	10356		6/9			10101	54147			0/012					10563	12109	14932	14469		-	EXCEPT NO	AFTER AGIN		
2				% ELONGATION	39.29	22.00	24.00	0.40	105.39	372.76	70.16	12.48	10.24	262.68	17.17	20.16	57.50	46. 34	62.28	162.40	22.72	17.99	75.04	10.35	B1 30	20.10	ALL REAL REAL REAL REAL REAL REAL REAL R	SED ON AN AVERAGE OF 1 WO LENSILE LEVELS. EXCENTIONS OF A MARIENT CONDITIONS		
	UN		TENSILE	kg/mm ^ 2		20.0	0.0	90.9	5.21	3.79			14.95	2.73	16.53		11.07	88	10.51	5.09	7.64	8.58	10 10	0 10	0.0	<u>N</u> .,	OF OF THE			
	NITIAL TECTING	NIML ICOL	TEN	lbm/in^2	00777	10011	9/24	8617	7412	5397	12728	20689	21262	3879	23510	22990	15750	14082	14946	7240	10865	12209	14360		12400	56001		ON AN AVE!		
		-	ONAL AREA	mm^2	10		10.57	10.76	10.30	10.62	10.77	10.85	10.76	8.63	10.69	10.67	10.73	10.57	10.63	10.95		CA 41		00.01	10.69	10.64				
			CROSS-SECTIONAL AR	in ^ 2		0.017	0.016	0.017	0.016	0.016	0.017	0.017	0.017	0.013	0.017	2.017	0.017	0.016	0.016	0.017	0.00	0.000	0.022	10.0	0.017	0.016		ALL CALCULAT	ALL IENSILE PULLS WERE AI AMBIENT CONDI	N/A = IESI BI
			TVDC			POLYPHTHALAMIDE	ACETAL	DIENCIE			POLYARYI SIII FONE	POI VETHVI ENE TEREPHTHALATE	DOI VEHENVI ENESULFIDE	POLIVIER ALLINGOETHYL ENF						FULTANTLE INCOME ONE	POLYBUIYLENE IENERHIMALAIE	POLYIMIDE - DF	POLYIMIDE - DF - ISO	POLY (ARYLETHERETHERKETONE)	LIQUID CRYSTAL POLYMER	66 NYLON, POLYAMIDE				
			9	Ż		-		,	t 1	0	0 0				29	2		2	<u>e</u> !:	-	8	19	8	51	22	23				

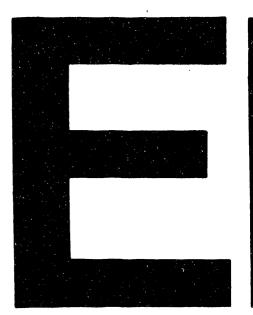
TENSILE PROPERTIES OF PLASTICS EXPOSED TO 32 ISO VG BRANCHED ACID POLYOL ESTER AND HFC--143a (R--143a) [14 DAYS AT 150 DEG.C. (300 DEG.F.) AT 275-300 PSIA] TABLE F-16

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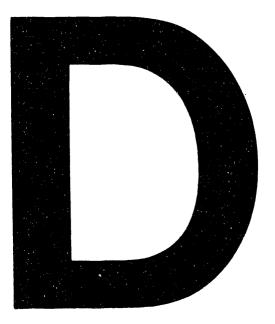
TYPE POL YPHTHALAMIDE ACETAL PHENOLIC PHENOLIC POL VNINYLIDENE FLUORIDE POL YPROPYLENE POL YPHENYLENE POL YPHENYLENE TEREPHTHALATE POL YPHENYLENE TEREPHTHALATE	CROSS-SECTIONAL A	-	INTIAL TESTING	50		AFTE	AFTER AGING LESTING	SIING	% CHANGE AFTEH AGING	FIER AGIN
POL YPHTHALAMIDE ACETAL PHENOLIC PHENOLIC POL YVINYLIDENE FLUORIDE POL YPROPYLENE POL YPHENYLENE POL YPHENYLENE TEREPHTHALATE POL YPHENYLENE TEREPHTHALATE		DNAL AREA	TENSILE	SILE		TEN	TENSILE			
	in^2	mm ^ 2	lbm/in ^ 2	kg/mm ^ 2	% ELONGATION	lbm/in ^ 2	kg/mm ^ 2	% ELONG.	TENSILE	% ELONG.
	0.017	10.65	11489	8.08	39.29	14199	9.98	12.99	23.59	-66.93
	0.016	10.57	9754	6.86	22.60	2965	2.08	7.09	-69.60	-68.64
	0.017	10.76	8617	6.06	6.46	10275	7.22	4.72	19.24	- 26.83
	0.016	10.30	7412	5.21	105.39	7102	4.99	117.32	-4.18	11.32
	0.016	10.62	5397	3.79	372.76	4567	3.21	6)	-15.38	-16.14
	0.017	10.77	12728	8.95	70.16	14299	10.05	39.17	12.34	-44.16
	0.017	10.85	20689	14.55	12.48	13800	9.70		1	1
1	0.017	10.76	21262	14.95	10.24	24569	17.27		-	
	0.013	8.63	3879	2.73	262.68	4090	2.88	299.61	5.46	
	0.017	10.69	23510	16.53	17.17	14187	9.97	19.49	-39.66	
-	0.017	10.67	22990	16.16	20.16	22537	15.84	18.70	-1.97	-7.23
	0.017	10.73	15750	11.07	64.33	16622	11.69	48.62	5.54	ï
+	0.016	10.57	14082	9.90	46.38	15085	10.61	47.64	7.13	2.72
	0.016	10.63	14946	10.51	62.28	16458	11.57	41.34	10.12	-33.63
+	0.017	10.95	7240	5.09	162.40	4994	3.51	5.51	-31.02	
+	0.023	14.76	10865	7.64	22.72	11407	8.02	18.50	4.99	
-+-	0.022	14.42	12209	8.58	17.99	12391	8.71	15.75	1.49	-12.47
	0.017	10.90	14360	10.10	75.04	14898	10.47	U	3.75	
+	0.017	10.69	12488	8.78	10.35	14251	10.02		14.12	
	0.016	10.64	10093	7.10	81.30	12238	8.60	47.64	21.26	-41.40
L		ONS BASED	ON AN AVER	AGE OF TWO	ALL CALCULATIONS BASED ON AN AVERAGE OF TWO TENSILE TESTS. F	EXCEPT NO.	EXCEPT NO.16 WHICH IS 5.	ري. لاي		
N/N	ALL TENSILE PULLS WERE AT AMBIENT CONUT N/A = TEST BAR DESTROYED BY CONDITIONS	A DESTROYE		IONS.	ALL TENSILE PULLS WERE AT AMBIENT CONDITION AND WITCHIN 24 THE ACTING OCTAVITY OF A NAME AND ALL TEST BAR DESTROYED BY CONDITIONS.			i		

TENSILE PROPERTIES OF PLASTICS EXPOSED TO 32 ISO VG ALKYLBENZENE AND HFC-152a (R-152a) [14 DAYS AT 150 DEG.C. (300 DEG.F.) AT 275-300 PSIA] TABLE F-17

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