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NASA Johnson Space Center  
Las Cruces, NM



# ASTM Committee D20 on Plastics Liaison Report



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16 October 2006

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*ASTM G04.09 Executive Subcommittee Flammability and Sensitivity of  
Materials in Oxygen and Oxygen-Enriched Atmospheres, Silver Spring MD*

## **Committee D-20 on Plastics**

- Membership of approximately 700
- Currently has jurisdiction of over 475 standards, published in the Annual Book of ASTM Standards, Section 8 on Plastics
- 23 technical subcommittees

# Committee D-20 on Plastics

- D20.09 Specimen Preparation
- D20.10 Mechanical Properties (2)
- D20.15 Thermoplastic Materials (3)
- D20.16 Thermosetting Materials (1)
- D20.18 Reinforced Thermosetting Plastics (1)
- D20.19 Film and Sheet
- D20.20 Plastic Products (2)
- D20.20.02 Rods, Sheets, Tubular Bars and Plaques
- D20.22 Cellular Materials - Plastics and Elastomers
- D20.23 Reinforced Plastic piping Systems and Chemical Equipment
- D20.24 Plastic Building Products
- D20.30 Thermal Properties (16)
- D20.40 Optical Properties
- D20.50 Durability of Plastics (3)
- D20.61 US TAG ISO/TC-61 on Plastics
- D20.70 Analytical Methods (4)
- D20.90 Executive
- D20.92 Terminology
- D20.94 Government/Industry Standardization
- D20.95 Recycled Plastics
- D20.96 Environmentally Degradable Plastics and Biobased Products (1)

# **Committee D-20 on Plastics Activities**

## **D20.10 Mechanical Properties**

### **D5592-94(2002) Standard Guide for Material Properties Needed in Engineering Design Using Plastics**

- Status: Review for Ballot

### **D5870-95(2003) Standard Practice for Calculating Property Retention Index of Plastics**

- Status: Current

# **Committee D-20 on Plastics Activities**

## **D20.15 Thermoplastic Materials**

**D1996-97(2003) Standard Test Method for Determination of Phenolic Antioxidants and Erucamide Slip Additives in Low Density Polyethylene Using Liquid Chromatography (LC)**

- Status: Current

**D2765-01(2006) Standard Test Methods for Determination of Gel Content and Swell Ratio of Crosslinked Ethylene Plastics**

- Status: Current  
WK10361 (Technical Contact: White Jee)  
WK10362 (Technical Contact: White Jee)

**D3012-04 Standard Test Method for Thermal-Oxidative Stability of Propylene Plastics Using a Specimen Rotator Within an Oven**

- Status: Current

# **Committee D-20 on Plastics Activities**

## **D20.16 Thermosetting Materials**

### **D4350-00(2005) Standard Test Method for Corrosivity Index of Plastics and Fillers**

- **Status: Current  
WK8849 (Technical Contact: Walter Baumgardt)**

# **Committee D-20 on Plastics Activities**

## **D20.18 Reinforced Thermosetting Plastics**

### **D2584-02 Standard Test Method for Ignition Loss of Cured Reinforced Resins**

- **Status: Review for Ballot**

# **Committee D-20 on Plastics Activities**

## **D20.20 Plastic Products**

**D7194-05 Standard Specification for Aerospace Parts Machined from Polychlorotrifluoroethylene**

- Approved August 2005

**D7211-06 Standard Specification for Parts Machined from Polychlorotrifluoroethylene (PCTFE) and Intended for General Use**

- Approved April 2006



# **Committee D-20 on Plastics Activities**

## **D20.30 Thermal Properties**

### **D635-06 Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position**

- Status: Current
- See WK6569 (Technical Contact: David Edenburn)

### **D1929-96(2001) Standard Test Method for Determining Ignition Temperature of Plastics**

- Status: Ballot Action Required
- See WK7749 (Technical Contact: Harold Yohn)
- See WK11410 (Technical Contact: Harold Yohn) Ballot D20.30 (06-02) Item 002

### **D2843-99(2004) Standard Test Method for Density of Smoke from the Burning or Decomposition of Plastics**

- Status: Current
- See WK7751 (Technical Contact: Eris Haswell) Ballot D20 (06-03) Item 040

# **Committee D-20 on Plastics Activities**

## **D20.30 Thermal Properties**

**D2863-06a Standard Test Method for Measuring the Minimum Oxygen Concentration to Support Candle-Like Combustion of Plastics (Oxygen Index)**

- Status: Current  
See WK4656 (Technical Contact: Marcelo Hirscler)

**D3014-04a Standard Test Method for Flame Height, Time of Burning, and Loss of Mass of Rigid Thermoset Cellular Plastics in a Vertical Position**

- Status: Current

**D3675-05 Standard Test Method for Surface Flammability of Flexible Cellular Materials Using a Radiant Heat Energy Source**

- Status: Current  
See WK7750 (Technical Contact: Marcelo Hirscler) Ballot D20.30 (05-01) Item 007

# Committee D-20 on Plastics Activities

## D20.30 Thermal Properties

### D3801-00 Standard Test Method for Measuring the Comparative Burning Characteristics of Solid Plastics in a Vertical Position

- Status: Overdue  
See WK4655 (Technical Contact: Daniel O'Shea)  
Note: In the absence of other ballot action, Regulations require automatic ballot for withdrawal.

### D3814-06 Standard Guide for Locating Combustion Test Methods for Polymeric Materials

- Status: Current  
See WK2268 (Technical Contact: John Blair)  
See WK11055 (Technical Contact: Deborah Oates)

### D3895-04 Standard Test Method for Oxidative-Induction Time of Polyolefins by Differential Scanning Calorimetry

- Status: Current  
See WK9395 (Technical Contact: Shuva Chang) Ballot D20 (06-06) Item 003;  
See WK10194 (Technical Contact: Shuva Chang) Ballot D20 (06-06) Item 004

# **Committee D-20 on Plastics Activities**

## **D20.30 Thermal Properties**

### **D4804-03 Standard Test Method for Determining the Flammability Characteristics of Nonrigid Solid Plastics**

- Status: Current

### **D4986-03 Standard Test Method for Horizontal Burning Characteristics of Cellular Polymeric Materials**

- Status: Current

### **D5025-05 Standard Specification for Laboratory Burner Used for Small-Scale Burning Tests on Plastic Materials**

- Status: Current

# **Committee D-20 on Plastics Activities**

## **D20.30 Thermal Properties**

**D5048-03 Standard Test Method for Measuring the Comparative Burning Characteristics and Resistance to Burn-Through of Solid Plastics Using 125-mm Flame**

- Status: Current

**D5132-04 Standard Test Method for Horizontal Burning Rate of Polymeric Materials Used in Occupant Compartments of Motor Vehicles**

- Status: Current

**D5207-03 Standard Practice for Confirmation of 20-mm (50-W) and 125-mm (500-W) Test Flames for Small-Scale Burning Tests on Plastic Materials**

- Status: Current

# **Committee D-20 on Plastics Activities**

**Proposed new standard under jurisdiction of D20.30**

**WK9492 Standard Test Method for Determining Flammability Characteristics of Plastics and Other Solid Materials Using Microscale Combustion Calorimetry**

- **Technical Contact: Frederick Schall, Ballot D20 (06-05) Item 011**

# **Committee D-20 on Plastics Activities**

## **D20.50 Durability of Plastics**

### **D543-06 Standard Practices for Evaluating the Resistance of Plastics to Chemical Reagents**

- Status: Current  
See WK9685 (Technical Contact: James Galipeau)

### **D1042-06 Standard Test Method for Linear Dimensional Changes of Plastics Under Accelerated Service Conditions**

- Status: Current  
See WK9686 (Technical Contact: Douglas Wetzig)

### **D3045-92(2003) Standard Practice for Heat Aging of Plastics Without Load**

- Status: Current

# **Committee D-20 on Plastics Activities**

## **D20.70 Analytical Methods**

### **D5524-94(2001)e1 Standard Test Method for Determination of Phenolic Antioxidants in High Density Polyethylene Using Liquid Chromatography**

- Status: Ballot Action Required

### **D5630-01 Standard Test Method for Ash Content in Thermoplastics**

- Status: Ballot Action Required  
See WK11273 (Technical Contact: Robert McFarland)

### **D7210-06 Standard Practice for Extraction of Additives in Polyolefin Plastics**

- Status: Current

## **Proposed new standard under jurisdiction of D20.70**

### **WK8896 Standard Test Method for Determining Brominated Flame Retardants in Plastics**

- Technical Contact: Richard Carlson



# **Committee D-20 on Plastics Activities**

## **D20.96 Environmentally Degradable Plastics and Biobased Products**

### **D5510-94(2001) Standard Practice for Heat Aging of Oxidatively Degradable Plastics**

- **Status: Ballot Action Required**