PREPARATION, CHARACTERIZATION, PROPERTIES AND DEGRADATION BEHAVIOUR OF PEANUT SHELL POWDER/ RECYCLED POLYPROPYLENE COMPOSITES

by

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LIST OF ABBREVIATIONS

ASTM	American Society for Testing and Materials
CEN	European Committee for Standardization
CI	Carbonyl Index
DSC	Differential Scanning Calorimetry
DTG	Derivative Thermogravimeric
EB	Electron Beam
FESEM	Field Emission Scanning Electron Microscopy
FTIR	Fourier Transform Infra Red
HDPE	High Density Polyethylene
LDPE	Low Density Polyethylene
LLDPE	Linear Low Density Polyethylene
MSW	Municipal Solid Waste
NaOH	Sodium Hydroxide
PE	Polyethylene
PEAA	Polyethylene-co-Acrylic Acid
PET	Polyethylene Terephthalate
PLA	Poly (lactic acid)
PMMA	Poly(methyl methacrylate)
PP	Polypropylene
PS	Polystyrene
PSP	Peanut Shell Powder
PVC	Poly(vinyl chloride)
PVOH	Poly(vinyl alcohol)

RPP	Recycled Polypropylene
SEM	Scanning Electron Microscopy
TG	Thermogravimeric
TGA	Thermogravimetric Analysis
UV	Ultraviolet
WA	Water Absorption
XRD	X-ray Diffraction

LIST OF SYMBOLS

%	Percentage
ΔH_f	Heat of fusion
ΔH_m	Melt enthalpy
°C	Degree Celsius
°C/min	Degree Celsius per minute
cm	Centimetre
g	Gram
g/cm^3	Gram per centimeter cubic
GPa	GigaPascal
m^2/g	Meter square per gram
min	Minute
mm	Millimeter
mm/min	Millimeter per minute
MPa	MegaPascal
mW	miliWatt
nm	Nanometer
phr	Parts per hundred
rpm	Revolutions per minute
s	Second
T	Temperature
T_c	Crystallization temperature
T_d	Decomposition temperature
T_g	Glass transition temperature

T_m	Melting temperature
w/w	Weight to weight ratio
wt.%	Weight percent
X_c	Degree of crystallinity