

BASF Ultradur B 2550 PBT

Category : Polymer , Thermoplastic , Polyester, TP , Polybutylene Terephthalate (PBT) , Polybutylene Terephthalate (PBT), Unreinforced, Molded

Material Notes:

Ultradur B2550 is an unfilled, very free-flowing grade for coating paper and board with high heat resistance, for example for packaging of frozen goods and ready-prepared meals. Also suitable for injection-molding applications, where good flow properties are important. It conforms to FDA requirements of 21 CFR 177.1660.

Order this product through the following link:

http://www.lookpolymers.com/polymer_BASF-Ultradur-B-2550-PBT.php

Physical Properties	Metric	English	Comments
Density	1.30 g/cc	0.0470 lb/in ³	ISO 1183
Water Absorption	0.50 %	0.50 %	ISO 62
Moisture Absorption at Equilibrium	0.25 %	0.25 %	23°C/50% R.H.; ISO 62
Viscosity Test	107 cm ³ /g	107 cm ³ /g	Viscosity number
Linear Mold Shrinkage, Flow	0.015 cm/cm	0.015 in/in	
	0.016 cm/cm	0.016 in/in	60x60x2mm; ISO 294
Linear Mold Shrinkage, Transverse	0.015 cm/cm	0.015 in/in	
	0.019 cm/cm	0.019 in/in	60x60x2mm; ISO 294
Melt Flow	52 g/10 min	52 g/10 min	
	@Load 2.16 kg, Temperature 250 °C	@Load 4.76 lb, Temperature 482 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Ball Indentation Hardness	130 MPa	18900 psi	ISO 2039-1
Tensile Strength at Break	57.0 MPa	8270 psi	5mm/min; ISO 527-2
Tensile Strength, Yield	57.0 MPa	8270 psi	50mm/min; ISO 527-2
Elongation at Break	35 %	35 %	50mm/min; ISO 527-2
Elongation at Yield	3.7 %	3.7 %	50mm/min; ISO 527-2
Modulus of Elasticity	2.50 GPa	363 ksi	ISO 527-2
Charpy Impact Unnotched	25.0 J/cm ²	119 ft-lb/in ²	ISO 179/1eU
Charpy Impact, Notched	0.600 J/cm ²	2.86 ft-lb/in ²	ISO 179/1eA
Dart Drop, Total Energy	100 J	73.8 ft-lb	ISO 6603-1

Mechanical Properties	Metric	English	Comments
Tensile Creep Modulus, 1000 hours	1100 MPa	160000 psi	ISO 694-1

Thermal Properties	Metric	English	Comments
CTE, linear	13.0 - 16.0 $\mu\text{m/m}\cdot^\circ\text{C}$ @Temperature 23.0 - 80.0 $^\circ\text{C}$	7.22 - 8.89 $\mu\text{in/in}\cdot^\circ\text{F}$ @Temperature 73.4 - 176 $^\circ\text{F}$	DIN 53752
Specific Heat Capacity	1.50 J/g- $^\circ\text{C}$	0.359 BTU/lb- $^\circ\text{F}$	Melt; IEC 1006
Thermal Conductivity	0.270 W/m-K	1.87 BTU-in/hr-ft $^2\cdot^\circ\text{F}$	Melt; DIN 52612
Melting Point	220 - 225 $^\circ\text{C}$	428 - 437 $^\circ\text{F}$	ISO 11357-3
Maximum Service Temperature, Air	120 $^\circ\text{C}$	248 $^\circ\text{F}$	at 50% loss of tensile strength after 20000h; IEC 216-1
	140 $^\circ\text{C}$	284 $^\circ\text{F}$	at 50% loss of tensile strength after 5000h; IEC 216-1
	200 $^\circ\text{C}$	392 $^\circ\text{F}$	
Deflection Temperature at 0.46 MPa (66 psi)	165 $^\circ\text{C}$	329 $^\circ\text{F}$	ISO 75-2
Deflection Temperature at 1.8 MPa (264 psi)	65.0 $^\circ\text{C}$	149 $^\circ\text{F}$	ISO 75-2
Flammability, UL94	HB @Thickness 1.60 mm	HB @Thickness 0.0630 in	
	HB @Thickness 0.800 mm	HB @Thickness 0.0315 in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+16 ohm-cm	1.00e+16 ohm-cm	IEC 93
Surface Resistance	1.00e+13 ohm	1.00e+13 ohm	IEC 93
Dielectric Constant	3.3 @Frequency 100 Hz	3.3 @Frequency 100 Hz	IEC 250
	3.3 @Frequency 1.00e+6 Hz	3.3 @Frequency 1.00e+6 Hz	IEC 250
Dielectric Strength	40.0 kV/mm	1020 kV/in	IEC 243/1
Dissipation Factor	0.0013 @Frequency 100 Hz	0.0013 @Frequency 100 Hz	IEC 250

Electrical Properties	Metric	English	Comments
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	IEC 250
Comparative Tracking Index	450 V	450 V	Test Liquid B; IEC 112
	500 V	500 V	Test liquid A; IEC 112

Processing Properties	Metric	English	Comments
Melt Temperature	245 - 270 °C	473 - 518 °F	Injection molding
	230 - 290 °C	446 - 554 °F	Coating
	260 °C	500 °F	for shrinkage test
Mold Temperature	40.0 - 70.0 °C	104 - 158 °F	Ejection temperature
	60.0 °C	140 °F	for shrinkage test

Descriptive Properties	Value	Comments
Color	Natural	
Commercial Status	North America and Europe	
FDA	21 CFR 177.1660	
Form	Pellets	
Impact Modified	No	
Primary Processing Technique	Injection Molding and Coating	
Processing	Coating	
	Film Extrusion	
	Injection Molding	
	Other Extrusion	
Special characteristic	Heat stabilized or stable to heat	
	Light stabilized or stable to light	
	U.V. stabilized or stable to weather	
UL.UL-C	Yes	

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