

BASF Ultradur B 4040 G10 BK5110 50% Glass Filled PBT

Category : Polymer , Thermoplastic , Polyester, TP , Polybutylene Terephthalate (PBT) , Polybutylene Terephthalate (PBT), 50% Glass Fiber Filled

Material Notes:

Injection-molding grades containing 50% of glass fibers, for industrial parts with excellent surface quality. Applications: External door handles in vehicles, visible sunroof frames, over door handles, toaster castings, external mirrors, rear screen wiper arms in vehicles and sunroof wind deflectors.

Order this product through the following link:

http://www.lookpolymers.com/polymer_BASF-Ultradur-B-4040-G10-BK5110-50-Glass-Filled-PBT.php

Physical Properties	Metric	English	Comments
Density	1.73 g/cc	0.0625 lb/in ³	ISO 1183
Water Absorption	0.40 %	0.40 %	DIN 53495/1L
Moisture Absorption at Equilibrium	0.12 %	0.12 %	23°C/50% R.H.
Viscosity Test	90 cm ³ /g	90 cm ³ /g	Viscosity number
Linear Mold Shrinkage, Flow	0.0010 cm/cm	0.0010 in/in	Sheet
	0.0024 cm/cm	0.0024 in/in	60x60x2mm; ISO 294
Linear Mold Shrinkage, Transverse	0.0075 cm/cm	0.0075 in/in	Sheet
	0.0077 cm/cm	0.0077 in/in	60x60x2mm; ISO 294
Melt Flow	10.4 g/10 min	10.4 g/10 min	ISO 1133
	@Load 2.16 kg, Temperature 275 °C	@Load 4.76 lb, Temperature 527 °F	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	165 MPa	23900 psi	5mm/min; ISO 527-2
Elongation at Break	1.5 %	1.5 %	5mm/min; ISO 527-2
Modulus of Elasticity	18.7 GPa	2710 ksi	ISO 527-2
Charpy Impact Unnotched	5.20 J/cm ²	24.7 ft-lb/in ²	ISO 179/1eU
Charpy Impact, Notched	1.00 J/cm ²	4.76 ft-lb/in ²	ISO 179/1eA
Dart Drop, Total Energy	<= 5.00 J	<= 3.69 ft-lb	ISO 6603-1

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	2.00 - 3.00 µm/m-°C	1.11 - 1.67 µin/in-°F	DIN 53752

Thermal Properties	@Temperature 23.0 - 30.0 °C Metric	@Temperature 73.4 - 86.0 °F English	Comments
Specific Heat Capacity	1.60 J/g-°C	0.382 BTU/lb-°F	IEC 1006
Melting Point	220 - 250 °C	428 - 482 °F	
Maximum Service Temperature, Air	140 °C	284 °F	at 50% loss of tensile strength after 20000h; IEC 216-1
	160 °C	320 °F	at 50% loss of tensile strength after 5000h; IEC 216-1
	210 °C	410 °F	
Deflection Temperature at 0.46 MPa (66 psi)	221 °C	430 °F	ISO 75-2
Deflection Temperature at 1.8 MPa (264 psi)	205 °C	401 °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 60093
Surface Resistance	>= 1.00e+16 ohm	>= 1.00e+16 ohm	IEC 60093
Dielectric Constant	4.5 @Frequency 1.00e+6 Hz	4.5 @Frequency 1.00e+6 Hz	IEC 60250
	4.7 @Frequency 100 Hz	4.7 @Frequency 100 Hz	IEC 60250
Dielectric Strength	16.0 kV/mm	406 kV/in	IEC 243/1
Dissipation Factor	0.015 @Frequency 1.00e+6 Hz	0.015 @Frequency 1.00e+6 Hz	IEC 60250
	0.020 @Frequency 100 Hz	0.020 @Frequency 100 Hz	IEC 60250
Comparative Tracking Index	225 V	225 V	Test solution A; IEC 112

Processing Properties	Metric	English	Comments
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Melt Temperature Processing Properties	250 - 275 °C Metric	482 - 527 °F English	Injection molding Comments
	270 °C	518 °F	for shrinkage test
Mold Temperature	60.0 - 100 °C	140 - 212 °F	
	80.0 °C	176 °F	for shrinkage test

Descriptive Properties	Value	Comments
Color	BK5110 and Colored	
Commercial Status	Active America	
Form	Pellets	
Impact Modified	No	
Primary Processing Technique	Injection Molding	
Processing	Injection Molding	
Special characteristic	Release agent	

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