

BASF Ultradur® B 4406 G6 30% Glass Filled PBT

Category : Polymer , Thermoplastic , Polyester, TP , Polybutylene Terephthalate (PBT) , Polybutylene Terephthalate (PBT), 30% Glass Fiber Filled

Material Notes:

Description: Is a PBT, flame-retardant injection-molding grades, with 30% glass fibers, for parts requiring enhanced fire resistance, e.g. plug-and-socket connectors, housings, coil formers and lighting components. Information provided by BASF

Order this product through the following link:

http://www.lookpolymers.com/polymer_BASF-Ultradur-B-4406-G6-30-Glass-Filled-PBT.php

Physical Properties	Metric	English	Comments
Density	1.65 g/cc	0.0596 lb/in ³	ISO 1183
Water Absorption	0.40 %	0.40 %	Saturation; DIN 53495/1L
Moisture Absorption at Equilibrium	0.20 %	0.20 %	23°C; 50% RH
Viscosity Measurement	108	108	[ml/g]; Viscosity number; ISO 1628
Linear Mold Shrinkage, Flow	0.0020 cm/cm	0.0020 in/in	Sheet
Linear Mold Shrinkage, Transverse	0.010 cm/cm	0.010 in/in	Sheet
Melt Flow	13.2 g/10 min @Load 2.16 kg, Temperature 250 °C	13.2 g/10 min @Load 4.76 lb, Temperature 482 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Ball Indentation Hardness	220 MPa	31900 psi	ISO 2039-1
Tensile Strength, Yield	145 MPa	21000 psi	50 mm/min; ISO 527-2
Elongation at Break	2.3 %	2.3 %	50mm/min; ISO 527-2
Modulus of Elasticity	11.3 GPa	1640 ksi	ISO 527-2
Charpy Impact Unnotched	6.00 J/cm ²	28.6 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	W₅₀₁ housing; ISO 6603-1
Tensile Creep Modulus, 1000 hours	7500 MPa @Strain <=0.500 %	1.09e+6 psi @Strain <=0.500 %	ISO 899-1

Thermal Properties	Metric	English	Comments
	2.00 - 3.00 µm/m-°C	1.11 - 1.67 µin/in-°F	

CTE, linear, Parallel to Flow Thermal Properties	Metric @ Temperature 23.0 - 80.0 °C	English @ Temperature 73.4 - 176 °F	DIN 53752 Comments
Specific Heat Capacity	1.40 J/g-°C	0.335 BTU/lb-°F	IEC 1006
Thermal Conductivity	0.320 W/m-K	2.22 BTU-in/hr-ft ² -°F	DIN 52612
Melting Point	220 - 225 °C	428 - 437 °F	DSC; ISO 11357-3
Maximum Service Temperature, Air	125 °C	257 °F	at 50% loss of tensile strength after 20000h; IEC 216-1
	150 °C	302 °F	at 50% loss of tensile strength after 5000h; IEC 216-1
	210 °C	410 °F	
Deflection Temperature at 0.46 MPa (66 psi)	225 °C	437 °F	ISO 75-2
Deflection Temperature at 1.8 MPa (264 psi)	205 °C	401 °F	ISO 75-2
Flammability, UL94	V-0 @Thickness 0.800 mm	V-0 @Thickness 0.0315 in	
	V-0 @Thickness 1.60 mm	V-0 @Thickness 0.0630 in	
Glow Wire Test	960 °C @Thickness 3.00 mm	1760 °F @Thickness 0.118 in	IEC 695

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	3.9 @Frequency 1.00e+6 Hz	3.9 @Frequency 1.00e+6 Hz	IEC 250
	3.9 @Frequency 100 Hz	3.9 @Frequency 100 Hz	IEC 250
Dielectric Strength	40.0 kV/mm	1020 kV/in	IEC 243/1
Dissipation Factor	0.0020 @Frequency 100 Hz	0.0020 @Frequency 100 Hz	IEC 250
	0.015 @Frequency 1.00e+6	0.015 @Frequency 1.00e+6	IEC 250

Electrical Properties	Hz Metric	Hz English	Comments
Comparative Tracking Index	125 V	125 V	Test solution B; IEC 112
	200 V	200 V	Test solution A; IEC 112

Processing Properties	Metric	English	Comments
Melt Temperature	206 °C	403 °F	for shrinkage test
	250 - 275 °C	482 - 527 °F	Injection-molding
Mold Temperature	60.0 - 100 °C	140 - 212 °F	
	80.0 °C	176 °F	for shrinkage test

Descriptive Properties	Value	Comments
Color	Natural, Colored, Black and Special Colors	
Commercial Status	Europe	
Primary Processing Technique	Injection Molding	

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