

BASF Ultradur B 4520 PBT

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

Material Notes:

Ultradur B4520 is a medium viscosity, rapidly freezing injection molding grade.

Order this product through the following link:

http://www.lookpolymers.com/polymer_BASF-Ultradur-B-4520-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 %	DIN 53495/1L
Moisture Absorption at Equilibrium	0.25 %	0.25 %	23°C/50% R.H.
Viscosity Test	130 cm ³ /g	130 cm ³ /g	Viscosity number
Linear Mold Shrinkage, Flow	0.015 cm/cm	0.015 in/in	60x60x2mm; ISO 294
	0.015 cm/cm	0.015 in/in	Sheet
Linear Mold Shrinkage, Transverse	0.015 cm/cm	0.015 in/in	Sheet
	0.017 cm/cm	0.017 in/in	60x60x2mm; ISO 294
Melt Flow	24.7 g/10 min	24.7 g/10 min	ISO 1133
	@Load 2.16 kg, Temperature 250 °C	@Load 4.76 lb, Temperature 482 °F	

Mechanical Properties	Metric	English	Comments
Ball Indentation Hardness	130 MPa	18900 psi	ISO 2039-1
Tensile Stress	5.00 MPa	725 psi	ISO 527
	@Strain 2.00 %, Temperature 160 °C	@Strain 2.00 %, Temperature 320 °F	
	8.00 MPa	1160 psi	ISO 527
	@Strain 6.00 %, Temperature 160 °C	@Strain 6.00 %, Temperature 320 °F	
	10.0 MPa	1450 psi	ISO 527
	@Strain 10.0 %, Temperature 160 °C	@Strain 10.0 %, Temperature 320 °F	
	39.0 MPa	5660 psi	ISO 527
	@Strain 8.00 %, Temperature 30.0 °C	@Strain 8.00 %, Temperature 86.0 °F	

Mechanical Properties	40.0 MPa Metric	5800 psi English	Comments ISO 527
	@Strain 2.00 %, Temperature 30.0 °C	@Strain 2.00 %, Temperature 86.0 °F	
	42.0 MPa	6090 psi	ISO 527
	@Strain 4.00 %, Temperature 30.0 °C	@Strain 4.00 %, Temperature 86.0 °F	
	55.0 MPa	7980 psi	ISO 527
	@Strain 2.00 %, Temperature -40.0 °C	@Strain 2.00 %, Temperature -40.0 °F	
	60.0 MPa	8700 psi	ISO 527
	@Strain 8.00 %, Temperature -40.0 °C	@Strain 8.00 %, Temperature -40.0 °F	
	90.0 MPa	13100 psi	ISO 527
	@Strain 6.00 %, Temperature -40.0 °C	@Strain 6.00 %, Temperature -40.0 °F	
	8.00 MPa	1160 psi	100°C; ISO 527
	@Strain 5.00 %, Time 3.60e+6 sec	@Strain 5.00 %, Time 1000 hour	
	12.0 MPa	1740 psi	100°C; ISO 527
	@Strain 10.0 %, Time 3.60e+6 sec	@Strain 10.0 %, Time 1000 hour	
	12.0 MPa	1740 psi	60°C; ISO 527
	@Strain 5.00 %, Time 3.60e+6 sec	@Strain 5.00 %, Time 1000 hour	
	15.0 MPa	2180 psi	100°C; ISO 527
	@Strain 15.0 %, Time 3.60e+6 sec	@Strain 15.0 %, Time 1000 hour	
	18.0 MPa	2610 psi	60°C; ISO 527
	@Strain 10.0 %, Time 3.60e+6 sec	@Strain 10.0 %, Time 1000 hour	
	20.0 MPa	2900 psi	60°C; ISO 527
	@Strain 15.0 %, Time 3.60e+6 sec	@Strain 15.0 %, Time 1000 hour	
Tensile Strength, Yield	60.0 MPa	8700 psi	50mm/min; ISO 527
	22.0 MPa	3190 psi	ISO 527
	@Temperature 100 °C	@Temperature 212 °F	
	60.0 MPa	8700 psi	

Mechanical Properties	Metric @Temperature 23.0 °C	English @Temperature 73.4 °F	ISO 527 Comments
	105 MPa	15200 psi	ISO 527
	@Temperature -40.0 °C	@Temperature -40.0 °F	
Elongation at Break	>= 50 %	>= 50 %	50mm/min; ISO 527
Elongation at Yield	3.7 %	3.7 %	50mm/min; ISO 527
Modulus of Elasticity	2.40 GPa	348 ksi	ISO 527-2
Flexural Strength	85.0 MPa	12300 psi	ISO 178
Charpy Impact Unnotched	NB	NB	ISO 179/1eU
Charpy Impact, Notched	0.600 J/cm ²	2.86 ft-lb/in ²	ISO 179/1eA
Dart Drop, Total Energy	>= 140 J	>= 103 ft-lb	ISO 6603-1
Tensile Creep Modulus, 1000 hours	1200 MPa	174000 psi	ISO 899

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	13.0 - 16.0 µm/m-°C	7.22 - 8.89 µin/in-°F	
	@Temperature 23.0 - 80.0 °C	@Temperature 73.4 - 176 °F	
Specific Heat Capacity	1.50 J/g-°C	0.359 BTU/lb-°F	IEC 1006
Thermal Conductivity	0.270 W/m-K	1.87 BTU-in/hr-ft ² -°F	DIN 52612
Melting Point	220 - 225 °C	428 - 437 °F	ASTM Test
Maximum Service Temperature, Air	120 °C	248 °F	at 50% loss of tensile strength after 20000h; IEC 216-1
	140 °C	284 °F	at 50% loss of tensile strength after 5000h; IEC 216-1
	200 °C	392 °F	
Deflection Temperature at 0.46 MPa (66 psi)	165 °C	329 °F	ISO 75
Deflection Temperature at 1.8 MPa (264 psi)	65.0 °C	149 °F	ISO 75
Flammability, UL94	HB	HB	
	@Thickness 1.60 mm	@Thickness 0.0630 in	
	HB	HB	
	@Thickness 0.800 mm	@Thickness 0.0315 in	
	850 °C	1560 °F	

Glow Wire Test Thermal Properties	Metric	English	IEC 695 Comments
	@ Thickness 3.00 mm	@ Thickness 0.118 in	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+16 ohm-cm	1.00e+16 ohm-cm	IEC 60093
Surface Resistance	1.00e+13 ohm	1.00e+13 ohm	IEC 60093
Dielectric Constant	3.3	3.3	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Dielectric Strength	3.4	3.4	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Dielectric Strength	140 kV/mm	3560 kV/in	IEC 243/1
Dissipation Factor	0.0020	0.0020	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Comparative Tracking Index	0.020	0.020	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Comparative Tracking Index	450 V	450 V	IEC 60112
	550 V	550 V	Test Liquid A; IEC 60112

Processing Properties	Metric	English	Comments
Melt Temperature	260 °C	500 °F	for shrinkage test
	250 - 275 °C	482 - 527 °F	Injection molding
Mold Temperature	40.0 - 70.0 °C	104 - 158 °F	Injection molding
	60.0 °C	140 °F	for shrinkage test

Descriptive Properties	Value	Comments
Color	Natural, Colored, Black and Special Colors	
Commercial Status	North America and Europe	
Form	Pellets	
Impact Modified	No	
Primary Processing Technique	Injection Molding	
Processing		

Descriptive Properties	Injection Molding and Coating Value	Comments
Special characteristic	Heat stabilized or stable to heat	
	Light stabilized or stable to light	
	Lubricant	
	U.V. stabilized or stable to weather	

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China