



Ultradur® B 4520 High Speed

BASF Corporation - Polybutylene Terephthalate

Monday, November 4, 2019

General Information

Product Description

Ultradur B 4520 High Speed is an unfilled, easy flowing, injection molding PBT grade.

Applications

Ultradur B 4520 High Speed is designed for connectors and other technical parts.

General

Material Status	• Commercial: Active
Availability	• Europe • North America
Features	• Good Flow
Uses	• Connectors
Agency Ratings	• EC 1907/2006 (REACH)
RoHS Compliance	• RoHS Compliant
Forms	• Pellets
Processing Method	• Injection Molding

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.30	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (250°C/2.16 kg)	50	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.9	%	
Flow	1.8	%	
Water Absorption (Saturation, 73°F)	0.50	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.25	%	ISO 62
Viscosity Number (Reduced Viscosity)	115.0	ml/g	ISO 1628
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (73°F)	319000	psi	ISO 527-2
Tensile Stress (Yield, 73°F)	7250	psi	ISO 527-2
Tensile Strain (Yield, 73°F)	3.5	%	ISO 527-2
Nominal Tensile Strain at Break (73°F)	> 50	%	ISO 527-2
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F)	1.9	ft-lb/in ²	ISO 179
Charpy Unnotched Impact Strength (73°F)	90	ft-lb/in ²	ISO 179
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (66 psi, Unannealed)	266	°F	ISO 75-2/B
Heat Deflection Temperature (264 psi, Unannealed)	131	°F	ISO 75-2/A
Melting Temperature (DSC)	433	°F	ISO 3146

Processing Information

Injection	Nominal Value	Unit
Drying Temperature	212 to 248	°F
Drying Time	4.0	hr
Suggested Max Moisture	0.040	%

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Injection	Nominal Value	Unit
Processing (Melt) Temp	482 to 518	°F
Mold Temperature	104 to 176	°F
Injection Pressure	508 to 1810	psi
Injection Rate	Fast	
Back Pressure	< 145	psi

Notes

¹ Typical properties: these are not to be construed as specifications.