Ultradur® B 4450 G5

Polybutylene Terephthalate

BASF Corporation

Message:

Ultradur B 4450 G5 is a 25% glass reinforced injection molding PBT for parts requiring enhanced fire resistance as well as increased tracking resistance. (Halogen and Antimon free)
Applications
Typical applications include lamp sockets, connectors, coil formers, housings for control units, and power switches.

General Information			
Filler / Reinforcement	Glass Fiber,25% Filler by Weight		
Features	Antimony Free Flame Retardant Halogen Free Tracking Resistant		
Uses	Connectors Housings Switches		
Agency Ratings	EC 1907/2006 (REACH)		
RoHS Compliance	RoHS Compliant		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.61	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (275°C/2.16 kg)	20.0	cm³/10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.5	%	
Flow	0.55	%	
Water Absorption			ISO 62
Saturation, 23°C	0.40	%	
Equilibrium, 23°C, 50% RH	0.20	%	
Viscosity Number (Reduced Viscosity)	105.0	ml/g	ISO 1628
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (23°C)	9500	MPa	ISO 527-2
Tensile Stress (Break, 23°C)	105	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	2.4	%	ISO 527-2
Flexural Modulus (23°C)	9600	MPa	ISO 178
Flexural Stress (23°C)	180	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**

Charpy Notched Impact Strength (23°C)	5.0	kJ/m²	ISO 179
Charpy Unnotched Impact Strength			ISO 179
-30°C	44	kJ/m²	
23°C	42	kJ/m²	
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature			
0.45 MPa, Unannealed	220	°C	ISO 75-2/B
1.8 MPa, Unannealed	210	°C	ISO 75-2/A
Melting Temperature (DSC)	223	°C	ISO 3146
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	> 1.0E+16	ohms	IEC 60093
Volume Resistivity	1.0E+14	ohms·cm	IEC 60093
Dielectric Constant (1 MHz)	3.80		IEC 60250
Dissipation Factor (1 MHz)	0.014		IEC 60250
Comparative Tracking Index	600	V	IEC 60112
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
0.400 mm	V-2		
1.50 mm	V-0		
Injection	**Nominal Value**	**Unit**	
Drying Temperature	100 to 120	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.040	%	
Processing (Melt) Temp	250 to 270	°C	
Mold Temperature	60.0 to 100	°C	
Injection Pressure	3.45 to 10.3	MPa	
Injection Rate	Fast		
Back Pressure	< 1.00	MPa	

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China


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