

Ultradur® B 4300 K4

Polybutylene Terephthalate

BASF Corporation

Message:

Injection molding grade with 20 % glass beads for low-warpage technical parts (eg precision parts for optical equipment, fuel level sensors, gas meter housings).

General Information			
UL YellowCard	E41871-233779		
Filler / Reinforcement	Glass Bead, 20% Filler by Weight		
Features	Low Warpage		
Uses	Engineering Parts		
	Housings		
	Optical Applications		
Agency Ratings	EC 1907/2006 (REACH)		
RoHS Compliance	RoHS Compliant		
Appearance	Black		
	Colors Available		
	Natural Color		
Forms	Pellets		
Processing Method	Injection Molding		
Multi-Point Data	Creep Modulus vs. Time (ISO 11403-1)		
	Isochronous Stress vs. Strain (ISO 11403-1)		
	Isothermal Stress vs. Strain (ISO 11403-1)		
	Secant Modulus vs. Strain (ISO 11403-1)		
	Viscosity vs. Shear Rate (ISO 11403-2)		
Resin ID (ISO 1043)	PBT-GB20		
Physical	Nominal Value	Unit	Test Method
Density	1.45	g/cm ³	ISO 1183
Apparent Density	0.70 to 0.80	g/cm ³	
Melt Volume-Flow Rate (MVR) (250°C/2.16 kg)	16.0	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.9	%	
Flow	1.9	%	
Water Absorption			ISO 62
Saturation, 23°C	0.40	%	
Equilibrium, 23°C, 50% RH	0.20	%	

Viscosity Number ¹	115	cm ³ /g	ISO 307
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness (H 358/30)	150	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	3500	MPa	ISO 527-2
Tensile Stress (Break)	48.0	MPa	ISO 527-2
Tensile Strain (Break)	6.0	%	ISO 527-2
Tensile Creep Modulus ² (1000 hr)	1300	MPa	ISO 899-1
Flexural Modulus	3400	MPa	ISO 178
Flexural Stress	100	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	4.0	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	26	kJ/m ²	
23°C	35	kJ/m ²	
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed	170	°C	ISO 75-2/B
1.8 MPa, Unannealed	70.0	°C	ISO 75-2/A
Melting Temperature	223	°C	ISO 11357-3
CLTE - Flow (23 to 80°C)	8.0E-5 to 9.0E-5	cm/cm/°C	ISO 11359-2
Specific Heat	1600	J/kg/°C	
Thermal Conductivity	0.27	W/m/K	DIN 52612
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+13	ohms	IEC 60093
Volume Resistivity	1.0E+16	ohms · cm	IEC 60093
Relative Permittivity			IEC 60250
100 Hz	4.00		
1 MHz	3.70		
Dissipation Factor			IEC 60250
100 Hz	0.012		
1 MHz	0.019		
Comparative Tracking Index			IEC 60112
Solution A	250	V	
Solution B	125	V	
Flammability	Nominal Value	Unit	Test Method
Flammability Classification			IEC 60695-11-10, -20
0.400 mm	HB		
1.60 mm	HB		
Injection	Nominal Value	Unit	
Drying Temperature	80.0 to 120	°C	
Drying Time	4.0	hr	

Suggested Max Moisture	0.040	%
Hopper Temperature	80.0	°C
Rear Temperature	240	°C
Middle Temperature	245	°C
Front Temperature	250	°C
Nozzle Temperature	250	°C
Processing (Melt) Temp	250 to 275	°C
Mold Temperature	40.0 to 80.0	°C

NOTE

1. solution 0,005 g/ml Phenole/1,2
Dichlorbenzol 1:1
2. strain <= 0,5%, 23°C

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

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

