

Durethan® BF 4222 00000

Polybutylene Terephthalate

LANXESS GmbH

Message:

PBT, 20 % glass fibers, injection molding, flame retardant

General Information			
Filler / Reinforcement	Glass Fiber,20% Filler by Weight		
Additive	Flame Retardant		
Features	Flame Retardant		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density (23°C)	1.57	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (260°C/2.16 kg)	12.0	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 2577
Across Flow : 260°C, 2.00 mm ¹	1.1	%	
Across Flow : 120°C, 4 hr, 2.00 mm ²	0.20	%	
Flow : 260°C, 2.00 mm ³	0.50	%	
Flow : 120°C, 4 hr, 2.00 mm ⁴	0.20	%	
Water Absorption			ISO 62
Saturation, 23°C	0.40	%	
Equilibrium, 23°C, 50% RH	0.20	%	
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness	176	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	7500	MPa	ISO 527-2/1
Tensile Strength	2.60		
Break, 23°C	2.60	MPa	ASTM D638
Break, 23°C	115	MPa	ISO 527-2/5
Flexural Modulus ⁵ (23°C)	7900	MPa	ISO 178/A
Flexural Stress ⁶ (23°C)	190	MPa	ISO 178/A
Flexural Strain at Flexural Strength ⁷ (23°C)	3.3	%	ISO 178/A
ISO Shortname	PBT, GFHMR, 09-070, GF20; ISO 1043-PBT GF FR (17)		ISO 7792

0.0 to 0.020

Residual Moisture Content	0.0 to 0.020	%	Karl Fisher
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	< 10	kJ/m ²	
23°C	< 10	kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	45	kJ/m ²	
23°C	50	kJ/m ²	
Notched Izod Impact Strength			ISO 180/1A
-30°C	< 10	kJ/m ²	
23°C	< 10	kJ/m ²	
Unnotched Izod Impact Strength			ISO 180/1U
-30°C	40	kJ/m ²	
23°C	45	kJ/m ²	
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed	215	°C	ISO 75-2/B
1.8 MPa, Unannealed	195	°C	ISO 75-2/A
Vicat Softening Temperature	211	°C	ISO 306/B50
Ball Pressure Test (211°C)	Pass		IEC 60695-10-2
Melting Temperature ⁸	222	°C	ISO 11357-3
CLTE			ISO 11359-2
Flow : 23 to 55°C	3.0E-5	cm/cm/°C	
Transverse : 23 to 55°C	1.0E-4	cm/cm/°C	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+17	ohms	IEC 60093
Volume Resistivity (23°C)	> 1.0E+16	ohms · cm	IEC 60093
Electric Strength (23°C, 1.00 mm)	31	kV/mm	IEC 60243-1
Comparative Tracking Index (CTI)	PLC 2		UL 746
Comparative Tracking Index (Solution A)	225	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.750 mm	V-0		
1.50 mm	V-0		
3.00 mm	V-0		
Glow Wire Flammability Index			IEC 60695-2-12
0.750 mm	960	°C	
1.50 mm	960	°C	
3.00 mm	960	°C	

Glow Wire Ignition Temperature			IEC 60695-2-13
0.750 mm	800	°C	
1.50 mm	800	°C	
3.00 mm	800	°C	
Oxygen Index ⁹	29	%	ISO 4589-2
Injection	Nominal Value	Unit	Test Method
Drying Temperature - Dry Air Dryer	120	°C	
	4.0 to 8.0		
Drying Time - Dry Air Dryer	4.0 to 8.0	hr	
Processing (Melt) Temp	240 to 260	°C	
Mold Temperature	80.0 to 100	°C	
NOTE			
1.	60x60x2mm, 80°C MT, 600 bar		
2.	60x60x2mm		
3.	60x60x2mm, 80°C MT, 600 bar		
4.	60x60x2mm		
5.	2.0 mm/min		
6.	2.0 mm/min		
7.	2 mm/min		
8.	10°C/min		
9.	Procedure A		

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



WECHAT