POCAN® BF 4225 000000

Polybutylene Terephthalate

LANXESS Corporation

Message:

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

General Information			
UL YellowCard	E245249-624978		
Filler / Reinforcement	Glass fiber reinforced material, 20% filler by weight		
Additive	Flame retardancy		
Features	Flame retardancy		
Agency Ratings	EC 1907/2006 (REACH)		
Processing Method	Injection molding		
Resin ID (ISO 1043)	PBT GF FR (17)		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density (23°C)	1.60	g/cm³	ISO 1183
Apparent Density	0.70	g/cm³	ISO 60
Melt Volume-Flow Rate (MVR) (260°C/2.16 kg)	19.0	cm³/10min	ISO 1133
Molding Shrinkage			ISO 2577
Vertical flow direction: 250°C, 2.00mm [1]	1.2	%	ISO 2577
Vertical flow direction: 120°C, 4 hours, 2.00mm [2]	0.10	%	ISO 2577
Flow direction: 250°C, 2.00mm [3]	0.50	%	ISO 2577
Flow direction: 120°C, 4 hours, 2.00mm [4]	0.10	%	ISO 2577
Viscosity Number (Reduced Viscosity)	97.0	ml/g	ISO 1628
Hardness	**Nominal Value**	**Unit**	**Test Method**
Ball Indentation Hardness	200	MPa	ISO 2039-1
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus			
23°C	7600	MPa	ASTM D638
23°C	8300	MPa	ISO 527-2/1
Tensile Strength			
Fracture, 23°C	119	MPa	ASTM D638
Fracture, 23°C	120	MPa	ISO 527-2/5
Tensile Elongation (Break, 23°C)	2.5	%	ASTM D638, ISO 527-2/5
Flexural Modulus			
23°C	6180	MPa	ASTM D790
23°C [5]	8100	MPa	ISO 178/A
Flexural Strength			
23°C	176	MPa	ASTM D790

23°C [6]	180	MPa	ISO 178/A
Flexural Strain at Flexural Strength (23°C) [7]	3.1	%	ISO 178/A
Halving Interval			IEC 60216
Electric Strength	12.4	°C	IEC 60216
Tensile Impact Strength	9.2	°C	IEC 60216
Tensile Strength	11.7	°C	IEC 60216
Temperature index			IEC 60216
Electric Strength, 20000 hr	145	°C	IEC 60216
Tensile Impact Strength, 20000 hr	135	°C	IEC 60216
Tensile Strength, 20000 hr	140	°C	IEC 60216
ISO Shortname	PBT, GFHMR, 07-080, GF20		ISO 7792
Residual Moisture Content	0.0 - 0.12	%	Karl Fisher
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	< 10	kJ/m^2	ISO 179/1eA
23°C	< 10	kJ/m^2	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	40	kJ/m^2	ISO 179/1eU
23°C	45	kJ/m^2	ISO 179/1eU
Notched Izod Impact			ISO 180/1A
-40°C	< 10	kJ/m^2	ISO 180/1A
-30°C	< 10	kJ/m^2	ISO 180/1A
Unnotched Izod Impact Strength			ISO 180/1U
-30°C	35	kJ/m^2	ISO 180/1U
23°C	40	kJ/m^2	ISO 180/1U
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature			
0.45 MPa, not annealed	220	°C	ISO 75-2/B
1.8 MPa, not annealed	200	°C	ISO 75-2/A
Vicat Softening Temperature	205	°C	ISO 306/B120
Ball Pressure Test (215°C)	Pass		IEC 60695-10-2
Melting Temperature [8]	225	°C	ISO 11357-3
Linear thermal expansion coefficient			ISO 11359-2
Flow: 23 to 55°C	3.0E-5	cm/cm/°C	ISO 11359-2
Lateral: 23 to 55°C	1.0E-4	cm/cm/°C	ISO 11359-2
Thermal Conductivity (23°C)	0.23	W/m/K	ISO 8302
RTI Elec	130	°C	UL 746
RTI Imp	130	°C	UL 746
RTI	140	°C	UL 746
Electrical	**Nominal Value**	**Unit**	**Test Method**
Dielectric Strength (23°C, 1.00 mm)	29	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250

23°C, 100 Hz	3.80		IEC 60250
23°C, 1 MHz	3.60		IEC 60250
Comparative Tracking Index (CTI)	PLC 2		UL 746
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating			UL 94
0.400 mm	V-0		UL 94
0.750 mm	V-0		UL 94
Glow Wire Flammability Index			IEC 60695-2-12
0.800 mm	960	°C	IEC 60695-2-12
1.50 mm	960	°C	IEC 60695-2-12
3.00 mm	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			IEC 60695-2-13
0.750 mm	725	°C	IEC 60695-2-13
1.50 mm	725	°C	IEC 60695-2-13
3.00 mm	725	°C	IEC 60695-2-13
Injection	**Nominal Value**	**Unit**	**Test Method**
Drying Temperature - Circulation Dryer	120	°C	
Drying Time - Circulation Dryer	4.0 - 8.0	hr	
Processing (Melt) Temp	240 - 260	°C	
Mold Temperature	80.0 - 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		

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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