

POCAN® B 4239 000000

Polybutylene Terephthalate

LANXESS Corporation

Message:

PBT, 30 % glass fibers, injection molding, flame retardant

General Information			
UL YellowCard	E245249-474009		
Filler / Reinforcement	Glass fiber reinforced material, 30% 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)	1.67	g/cm ³	ISO 1183
Apparent Density	0.80	g/cm ³	ISO 60
Melt Volume-Flow Rate (MVR) (260°C/5.0 kg)	37.0	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 2577
Vertical flow direction: 250°C, 2.00mm ¹	0.90	%	ISO 2577
Vertical flow direction: 120°C, 4 hours, 2.00mm ²	0.10	%	ISO 2577
Flow direction: 250°C, 2.00mm ³	0.30	%	ISO 2577
Flow direction: 120°C, 4 hours, 2.00mm ⁴	0.10	%	ISO 2577
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness	186	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
23°C	10100	MPa	ASTM D638
23°C	11500	MPa	ISO 527-2/1
Tensile Strength			
Fracture, 23°C	119	MPa	ASTM D638
Fracture, 23°C	125	MPa	ISO 527-2/5
Tensile Elongation			
Fracture, 23°C	2.2	%	ASTM D638
Fracture, 23°C	2.1	%	ISO 527-2/5
Flexural Modulus			
23°C	8360	MPa	ASTM D790
23°C ⁵	10500	MPa	ISO 178/A
Flexural Strength			

23°C	199	MPa	ASTM D790
23°C ⁶	200	MPa	ISO 178/A
Flexural Strain at Flexural Strength (23°C) ⁷	2.6	%	ISO 178/A
Halving Interval			IEC 60216
Electric Strength	12.0	°C	IEC 60216
Tensile Impact Strength	8.4	°C	IEC 60216
Tensile Strength	9.3	°C	IEC 60216
Temperature index			IEC 60216
Electric Strength, 20000 hr	145	°C	IEC 60216
Tensile Impact Strength, 20000 hr	130	°C	IEC 60216
Tensile Strength, 20000 hr	155	°C	IEC 60216
Electrolytical Corrosion (23°C)	A/B 1		IEC 60426
ISO Shortname	PBT, GFHMR, 09-110, GF30		ISO 7792
Residual Moisture Content	0.0 - 0.020	%	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	50	kJ/m ²	ISO 179/1eU
23°C	50	kJ/m ²	ISO 179/1eU
Notched Izod Impact			ISO 180/1A
-30°C	< 10	kJ/m ²	ISO 180/1A
23°C	< 10	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength			ISO 180/1U
-30°C	45	kJ/m ²	ISO 180/1U
23°C	45	kJ/m ²	ISO 180/1U
Multi-Axial Instrumented Impact Energy			ISO 6603-2
-30°C	2.10	J	ISO 6603-2
23°C	2.30	J	ISO 6603-2
Multi-Axial Instrumented Impact Peak Force			ISO 6603-2
-30°C	649	N	ISO 6603-2
23°C	669	N	ISO 6603-2
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 (213°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	2.0E-5	cm/cm/°C	ISO 11359-2
Lateral: 23 to 55°C	9.0E-5	cm/cm/°C	ISO 11359-2
Thermal Conductivity (23°C)	0.24	W/m/K	ISO 8302
RTI Elec	125	°C	UL 746
RTI Imp	110	°C	UL 746
RTI	140	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Dielectric Strength (23°C, 1.00 mm)	35	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
23°C, 100 Hz	3.90		IEC 60250
23°C, 1 MHz	3.80		IEC 60250
Comparative Tracking Index (Solution A)	275	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.380 mm	V-0		UL 94
0.800 mm	V-0		UL 94
Glow Wire Flammability Index (0.800 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			IEC 60695-2-13
0.800 mm	725	°C	IEC 60695-2-13
1.60 mm	725	°C	IEC 60695-2-13
3.00 mm	725	°C	IEC 60695-2-13
Oxygen Index ⁹	32	%	ISO 4589-2
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		
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

