

POCAN® B 4235 Z 000000

Polybutylene Terephthalate

LANXESS Corporation

Message:

PBT, 30 % glass fibers, injection molding, flame retardant, improved impact strength

General Information			
UL YellowCard	E245249-474026		
Filler / Reinforcement	Glass fiber reinforced material, 30% filler by weight		
Additive	Flame retardancy		
Features	Impact resistance, good		
	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)	1.62	g/cm³	ISO 1183
Apparent Density	0.80	g/cm³	ISO 60
Melt Volume-Flow Rate (MVR) (260°C/5.0 kg)	26.0	cm³/10min	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
Water Absorption			ISO 62
Saturated, 23°C	0.40	%	ISO 62
Equilibrium, 23°C, 50% RH	0.10	%	ISO 62
Viscosity Number (Reduced Viscosity)	83.0	ml/g	ISO 1628
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness	185	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	10000	MPa	ISO 527-2/1
Tensile Stress (Break, 23°C)	125	MPa	ISO 527-2/5
Tensile Strain (Break, 23°C)	2.8	%	ISO 527-2/5
Flexural Modulus ⁵ (23°C)	9700	MPa	ISO 178/A
Flexural Stress ⁶ (23°C)	210	MPa	ISO 178/A
Flexural Strain at Flexural Strength ⁷ (23°C)	3.2	%	ISO 178/A
ISO Shortname	PBT, GFHMPR, 09-100, 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	60	kJ/m ²	ISO 179/1eU
23°C	60	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
23°C	< 10	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength			ISO 180/1U
-30°C	55	kJ/m ²	ISO 180/1U
23°C	55	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
8.0 MPa, not annealed	130	°C	ISO 75-2/C
Vicat Softening Temperature	210	°C	ISO 306/B120
Ball Pressure Test (210°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	1.0E-4	cm/cm/°C	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Comparative Tracking Index (Solution A)	175	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.750 mm	V-2		UL 94
1.50 mm	V-0		UL 94
3.00 mm	5VA		UL 94
Glow Wire Flammability Index (2.00 mm)	960	°C	IEC 60695-2-12
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

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