

POCAN® BF 4232 000000

Polybutylene Terephthalate

LANXESS Asia/Pacific

Message:

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

General Information			
UL YellowCard	E245249-524903		
Filler / Reinforcement	Glass Fiber,30% Filler by Weight		
Additive	Flame Retardant		
Features	Flame Retardant		
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)	1.64	g/cm ³	ISO 1183
Apparent Density	0.80	g/cm ³	ISO 60
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	1.0	%	
Across Flow : 120°C, 4 hr, 2.00 mm ²	0.10	%	
Flow : 260°C, 2.00 mm ³	0.40	%	
Flow : 120°C, 4 hr, 2.00 mm ⁴	0.10	%	
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	196	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)	135	MPa	ISO 527-2/5
Tensile Strain (Break, 23°C)	2.5	%	ISO 527-2/5
Flexural Modulus ⁵ (23°C)	10000	MPa	ISO 178/A
Flexural Stress ⁶ (23°C)	215	MPa	ISO 178/A
Flexural Strain at Flexural Strength ⁷ (23°C)	2.9	%	ISO 178/A
ISO Shortname	PBT, GFHMR, 09-100, GF30		ISO 7792
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	55	kJ/m ²	
23°C	55	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	50	kJ/m ²	
23°C	50	kJ/m ²	
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed	220	°C	ISO 75-2/B
1.8 MPa, Unannealed	205	°C	ISO 75-2/A
Vicat Softening Temperature	210	°C	ISO 306/B50
Ball Pressure Test (213°C)	Pass		IEC 60695-10-2
Melting Temperature ⁸	222	°C	ISO 11357-3
CLTE			ISO 11359-2
Flow : 23 to 55°C	2.0E-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
Relative Permittivity			IEC 60250
23°C, 100 Hz	4.10		
23°C, 1 MHz	4.00		
Dissipation Factor			IEC 60250
23°C, 100 Hz	3.0E-3		
23°C, 1 MHz	0.017		
Comparative Tracking Index (CTI)	PLC 2		UL 746
Comparative Tracking Index (Solution A)	200	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
0.800 mm	960	°C	
1.50 mm	960	°C	
3.00 mm	960	°C	
Glow Wire Ignition Temperature			IEC 60695-2-13

0.750 mm	775	°C
1.50 mm	900	°C
3.00 mm	930	°C

Injection	Nominal Value	Unit	Test Method
Drying Temperature - Circulation Dryer	120	°C	
Drying Time - Circulation 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	

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