

POCAN® BFN 4211 000000 000000

Polybutylene Terephthalate

LANXESS Asia/Pacific

Message:

PBT, 13 % glass fibers, injection molding, halogen free flame retardant

General Information			
Filler / Reinforcement	Glass Fiber,13% Filler by Weight		
Additive	Flame Retardant		
Features	Flame Retardant		
	Halogen Free		
Agency Ratings	EC 1907/2006 (REACH)		
Processing Method	Injection Molding		
Resin ID (ISO 1043)	PBT GF FR (30+40)		
Physical	Nominal Value	Unit	Test Method
Density (23°C)	1.43	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (260°C/2.16 kg)	15.0	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	0.10	%	
Flow : 260°C, 2.00 mm ³	0.60	%	
Flow : 120°C, 4 hr, 2.00 mm ⁴	0.10	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	6200	MPa	ISO 527-2/1
Tensile Stress (Break, 23°C)	75.0	MPa	ISO 527-2/5
Tensile Strain (Break, 23°C)	2.7	%	ISO 527-2/5
Flexural Modulus ⁵ (23°C)	6700	MPa	ISO 178/A
Flexural Stress ⁶ (23°C)	125	MPa	ISO 178/A
Flexural Strain at Flexural Strength ⁷ (23°C)	2.7	%	ISO 178/A
ISO Shortname	PBT, GFHMR, 09-060, GF13		ISO 7792
Residual Moisture Content	0.0 to 0.020	%	Karl Fisher
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	< 10	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	25	kJ/m ²	
23°C	30	kJ/m ²	
Notched Izod Impact Strength (23°C)	< 10	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength			ISO 180/1U

-30°C	23	kJ/m ²	
23°C	25	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	190	°C	ISO 75-2/A
Vicat Softening Temperature	206	°C	ISO 306/B50
Ball Pressure Test (215°C)	Pass		IEC 60695-10-2
Melting Temperature ⁸	220	°C	ISO 11357-3
CLTE			ISO 11359-2
Flow : 23 to 55°C	4.0E-5	cm/cm/°C	
Transverse : 23 to 55°C	9.0E-5	cm/cm/°C	
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity (23°C)	6.6E+15	ohms · cm	IEC 60093
Electric Strength (23°C, 1.00 mm)	33	kV/mm	IEC 60243-1
Comparative Tracking Index (CTI)	PLC 0		UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.400 mm	V-0		
0.750 mm	V-0		
	V-0		
1.50 mm	5VA		
	V-0		
3.00 mm	5VA		
Glow Wire Flammability Index			IEC 60695-2-12
0.400 mm	960	°C	
0.750 mm	960	°C	
1.50 mm	960	°C	
3.00 mm	960	°C	
Glow Wire Ignition Temperature			IEC 60695-2-13
0.400 mm	775	°C	
0.750 mm	775	°C	
1.50 mm	775	°C	
3.00 mm	775	°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	250 to 270	°C
Mold Temperature	70.0 to 90.0	°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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