

POCAN® BF 4235 000000

Polybutylene Terephthalate

LANXESS Asia/Pacific

Message:

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

General Information			
UL YellowCard	E245249-101061124	E245249-522386	
Filler / Reinforcement	Glass Fiber,30% Filler by Weight		
Additive	Flame Retardant		
Features	Flame Retardant		
Agency Ratings	EC 1907/2006 (REACH)		
Forms	Pellets		
Processing Method	Injection Molding		
Resin ID (ISO 1043)	PBT GF FR (17)		
Physical	Nominal Value	Unit	Test Method
Density (23°C)	1.66	g/cm³	ISO 1183
Apparent Density	0.80	g/cm³	ISO 60
Melt Volume-Flow Rate (MVR) (260°C/2.16 kg)	24.0	cm³/10min	ISO 1133
Molding Shrinkage			ISO 2577
Across Flow : 250°C, 2.00 mm ¹	1.1	%	
Across Flow : 120°C, 4 hr, 2.00 mm ²	0.10	%	
Flow : 250°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	0.10	%	
Viscosity Number (Reduced Viscosity)	93.0	ml/g	ISO 1628
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness	210	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
23°C	10900	MPa	ASTM D638
23°C	11000	MPa	ISO 527-2/1
Tensile Strength			
Break, 23°C	133	MPa	ASTM D638
Break, 23°C	135	MPa	ISO 527-2/5
Tensile Elongation			
Break, 23°C	1.8	%	ASTM D638

Break, 23°C	2.1	%	ISO 527-2/5
Tensile Creep Modulus			ISO 899-1
1 hr	11000	MPa	
1000 hr	10000	MPa	
Flexural Modulus			
23°C	8550	MPa	ASTM D790
23°C ⁵	10500	MPa	ISO 178/A
Flexural Strength			
23°C	209	MPa	ASTM D790
23°C ⁶	210	MPa	ISO 178/A
Flexural Strain at Flexural Strength (23°C) ⁷	2.6	%	ISO 178/A
Halving Interval			IEC 60216
Electric Strength	12.4	°C	
Tensile Impact Strength	9.2	°C	
Tensile Strength	11.7	°C	
Temperature Index			IEC 60216
Electric Strength, 20000 hr	145	°C	
Tensile Impact Strength, 20000 hr	135	°C	
Tensile Strength, 20000 hr	140	°C	
Electrolytical Corrosion (23°C)	A 1		IEC 60426
ISO Shortname	PBT, GFHMR, 07-110, 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	50	kJ/m ²	
23°C	50	kJ/m ²	
Notched Izod Impact Strength			ISO 180/1A
-40°C	< 10	kJ/m ²	
-30°C	< 10	kJ/m ²	
23°C	< 10	kJ/m ²	
Unnotched Izod Impact Strength			ISO 180/1U
-30°C	45	kJ/m ²	
23°C	45	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/B120
Ball Pressure Test (215°C)	Pass		IEC 60695-10-2

Melting Temperature ⁸	225	°C	ISO 11357-3
CLTE			ISO 11359-2
Flow : 23 to 55°C	2.0E-5	cm/cm/°C	
Transverse : 23 to 55°C	9.0E-5	cm/cm/°C	
Thermal Conductivity (23°C)	0.22	W/m/K	ISO 8302
RTI Elec	130	°C	UL 746
RTI Imp	130	°C	UL 746
RTI Str	140	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Electric Strength (23°C, 1.00 mm)	29	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
23°C, 100 Hz	4.00		
23°C, 1 MHz	3.90		
Comparative Tracking Index (CTI)	PLC 2		UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.400 mm	V-0		
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	725	°C	
1.50 mm	725	°C	
3.00 mm	725	°C	
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 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
9.	Procedure A

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