

POCAN® BF 4232 HR 901510

Polybutylene Terephthalate

LANXESS GmbH

Message:

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

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 30% filler by weight		
Additive	Hydrolysis resistance		
Features	Flame retardancy		
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	0.70	g/cm ³	ISO 60
Melt Volume-Flow Rate (MVR) (260°C/2.16 kg)	16.0	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Vertical flow direction: 260°C, 2.00mm ¹	1.1	%	ISO 294-4
Vertical flow direction: 120°C, 2 hours, 2.00mm ²	0.10	%	ISO 294-4
Flow direction: 260°C, 2.00mm ³	0.40	%	ISO 294-4
Flow direction: 120°C, 2 hours, 2.00mm ⁴	0.10	%	ISO 294-4
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	9800	MPa	ISO 527-2/1
Tensile Stress (Break, 23°C)	120	MPa	ISO 527-2/5
Tensile Strain (Break, 23°C)	2.0	%	ISO 527-2/5
Flexural Modulus ⁵ (23°C)	10000	MPa	ISO 178/A
Flexural Stress ⁶ (23°C)	185	MPa	ISO 178
Flexural Strain at Flexural Strength ⁷ (23°C)	2.3	%	
ISO Shortname	PBT, GFHMRW, 09-100, GF30; ISO 1043-PBT GF FR (17)		ISO 7792
Residual Moisture Content	0.0 - 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 (23°C)	40	kJ/m ²	ISO 179/1eU
Notched Izod Impact (23°C)	< 10	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength (23°C)	35	kJ/m ²	ISO 180/1U
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, not annealed	215	°C	ISO 75-2/B
1.8 MPa, not annealed	195	°C	ISO 75-2/A

Ball Pressure Test (212°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	3.0E-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
Dielectric Strength (23°C, 1.00 mm)	30	kV/mm	IEC 60243-1
Comparative Tracking Index (CTI)	PLC 3		UL 746
Comparative Tracking Index (Solution A)	225	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.400 mm	V-0		UL 94
0.800 mm	V-0		UL 94
1.50 mm	V-0		UL 94
3.00 mm	V-0		UL 94
Glow Wire Flammability Index			IEC 60695-2-12
0.400 mm	960	°C	IEC 60695-2-12
0.800 mm	960	°C	IEC 60695-2-12
1.50 mm	960	°C	IEC 60695-2-12
3.00 mm	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature			IEC 60695-2-13
0.400 mm	900	°C	IEC 60695-2-13
0.800 mm	850	°C	IEC 60695-2-13
1.50 mm	725	°C	IEC 60695-2-13
3.00 mm	725	°C	IEC 60695-2-13
Oxygen Index ⁹	36	%	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.	60x60x2; MT 80°C; 600 Bar		
2.	60x60x2		
3.	60x60x2; MT 80°C; 600 Bar		
4.	60x60x2		
5.	2.0 mm/min		
6.	2.0 mm/min		
7.	Pull Rate: 2 mm/min; 50% RH		
8.	10°C/min		
9.	Procedure A		

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