

POCAN® B 3216 HR 000000

Polybutylene Terephthalate

LANXESS GmbH

Message:

PBT, 16 % glass fibers, injection molding, improved impact strength, hydrolysis stabilized

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 16% filler by weight		
Additive	Hydrolysis resistance		
Features	Impact resistance, good		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density (23°C)	1.40	g/cm ³	ISO 1183
Apparent Density	0.70	g/cm ³	ISO 60
Melt Volume-Flow Rate (MVR) (260°C/2.16 kg)	24.0	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Vertical flow direction: 260°C, 2.00mm ¹	1.0	%	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	0.60	%	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)	5900	MPa	ISO 527-2/1
Tensile Stress (Break, 23°C)	100	MPa	ISO 527-2/5
Tensile Strain (Break, 23°C)	3.7	%	ISO 527-2/5
Flexural Modulus ⁵ (23°C)	5600	MPa	ISO 178/A
Flexural Stress ⁶			
3.5% strain	160	MPa	ISO 178/A
23°C	165	MPa	ISO 178
Flexural Strain at Flexural Strength ⁷ (23°C)	4.4	%	
ISO Shortname	PBT, GHMRW, 09-050, GF16		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	35	kJ/m ²	ISO 179/1eU
23°C	50	kJ/m ²	ISO 179/1eU
Notched Izod Impact			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	30	kJ/m ²	ISO 180/1U
23°C	45	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	190	°C	ISO 75-2/A
Vicat Softening Temperature	200	°C	ISO 306/B120
Melting Temperature ⁸	225	°C	ISO 11357-3
Linear thermal expansion coefficient			ISO 11359-2
Flow: 23 to 55°C	4.0E-5	cm/cm/°C	ISO 11359-2
Lateral: 23 to 55°C	1.3E-4	cm/cm/°C	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity (23°C)	> 1.0E+15	ohms·cm	IEC 60093
Dielectric Strength (23°C, 1.00 mm)	36	kV/mm	IEC 60243-1
Comparative Tracking Index (Solution A)	275	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.800 mm	HB		UL 94
1.60 mm	HB		UL 94
Injection	Nominal Value	Unit	Test Method
Drying Temperature - Circulation Dryer	120	°C	
Drying Time - Circulation Dryer	4.0 - 8.0	hr	
Processing (Melt) Temp	250 - 270	°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		

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