

POCAN® B 5220 XF 000000

Polybutylene Terephthalate

LANXESS GmbH

Message:

PBT, 20 % glass spheres, injection molding, improved flowability, improved impact strength, low tendency to warp

General Information			
Filler / Reinforcement	Glass beads, 20% filler by weight		
Features	Low warpage		
	Impact resistance, good		
	Good liquidity		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density (23°C)	1.42	g/cm ³	ISO 1183
Apparent Density	0.90	g/cm ³	ISO 60
Melt Volume-Flow Rate (MVR) (260°C/2.16 kg)	34.0	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 2577
Vertical flow direction: 260°C, 2.00mm ¹	2.3	%	ISO 2577
Vertical flow direction: 120°C, 4 hours, 2.00mm ²	0.20	%	ISO 2577
Flow direction: 260°C, 2.00mm ³	2.2	%	ISO 2577
Flow direction: 120°C, 4 hours, 2.00mm ⁴	0.20	%	ISO 2577
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	3100	MPa	ISO 527-2/1
Tensile Stress (Break, 23°C)	45.0	MPa	ISO 527-2/5
Tensile Strain (Break, 23°C)	6.0	%	ISO 527-2/5
Flexural Modulus ⁵ (23°C)	3300	MPa	ISO 178/A
Flexural Stress			ISO 178/A
3.5% strain, 23°C	85.0	MPa	ISO 178/A
23°C ⁶	90.0	MPa	ISO 178/A
Flexural Strain at Flexural Strength ⁷ (23°C)	5.0	%	ISO 178/A
ISO Shortname	PBT, GHMR, 09-030, GB20		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	25	kJ/m ²	ISO 179/1eU

23°C	45	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	20	kJ/m ²	ISO 180/1U
23°C	32	kJ/m ²	ISO 180/1U
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, not annealed	170	°C	ISO 75-2/B
1.8 MPa, not annealed	80.0	°C	ISO 75-2/A
Vicat Softening Temperature	180	°C	ISO 306/B120
Melting Temperature ⁸	225	°C	ISO 11357-3
Linear thermal expansion coefficient			ISO 11359-2
Flow: 23 to 55°C	1.0E-4	cm/cm/°C	ISO 11359-2
Lateral: 23 to 55°C	1.0E-4	cm/cm/°C	ISO 11359-2
Injection	Nominal Value	Unit	Test Method
Drying Temperature - Circulation Dryer	120	°C	
Drying Time - Circulation Dryer	4.0 - 8.0	hr	
Processing (Melt) Temp	250 - 270	°C	
Mold Temperature	80.0 - 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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