

# POCAN® B5220XF 000000

Polybutylene Terephthalate  
LANXESS GmbH

# PROSPECTOR®

www.ulprospector.com

## Technical Data

### Product Description

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

### General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe
Filler / Reinforcement	• Glass Bead, 20% Filler by Weight
Features	• Good Flow • Good Impact Resistance • Low Warpage
Processing Method	• Injection Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density (73°F (23°C))	1.42 g/cm <sup>3</sup>	1.42 g/cm <sup>3</sup>	ISO 1183
Apparent (Bulk) Density	0.90 g/cm <sup>3</sup>	0.90 g/cm <sup>3</sup>	ISO 60
Melt Volume-Flow Rate (MVR) (260°C/2.16 kg)	2.07 in <sup>3</sup> /10min	34.0 cm <sup>3</sup> /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow : 248°F (120°C), 0.0787 in (2.00 mm) <sup>2</sup>	0.20 %	0.20 %	
Across Flow : 500°F (260°C), 0.0787 in (2.00 mm) <sup>3</sup>	2.3 %	2.3 %	
Flow : 248°F (120°C), 0.0787 in (2.00 mm) <sup>2</sup>	0.20 %	0.20 %	
Flow : 500°F (260°C), 0.0787 in (2.00 mm) <sup>3</sup>	2.2 %	2.2 %	

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus (73°F (23°C))	450000 psi	3100 MPa	ISO 527-2/1
Tensile Stress (Break, 73°F (23°C))	6530 psi	45.0 MPa	ISO 527-2/5
Tensile Strain (Break, 73°F (23°C))	6.0 %	6.0 %	ISO 527-2/5
Flexural Modulus <sup>4</sup> (73°F (23°C))	479000 psi	3300 MPa	ISO 178/A
Flexural Stress <sup>4</sup>			ISO 178/A
73°F (23°C)	13100 psi	90.0 MPa	
3.5% Strain, 73°F (23°C)	12300 psi	85.0 MPa	
Flexural Strain at Flexural Strength <sup>5</sup>			ISO 178/A
73°F (23°C)	5.0 %	5.0 %	

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	< 4.8 ft·lb/in <sup>2</sup>	< 10 kJ/m <sup>2</sup>	
73°F (23°C)	< 4.8 ft·lb/in <sup>2</sup>	< 10 kJ/m <sup>2</sup>	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	12 ft·lb/in <sup>2</sup>	25 kJ/m <sup>2</sup>	
73°F (23°C)	21 ft·lb/in <sup>2</sup>	45 kJ/m <sup>2</sup>	
Notched Izod Impact Strength			ISO 180/1A
-22°F (-30°C)	< 4.8 ft·lb/in <sup>2</sup>	< 10 kJ/m <sup>2</sup>	
73°F (23°C)	< 4.8 ft·lb/in <sup>2</sup>	< 10 kJ/m <sup>2</sup>	
Unnotched Izod Impact Strength			ISO 180/1U
-22°F (-30°C)	9.5 ft·lb/in <sup>2</sup>	20 kJ/m <sup>2</sup>	
73°F (23°C)	15 ft·lb/in <sup>2</sup>	32 kJ/m <sup>2</sup>	



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Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature			
66 psi (0.45 MPa), Unannealed	338 °F	170 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	176 °F	80.0 °C	ISO 75-2/A
Vicat Softening Temperature	356 °F	180 °C	ISO 306/B120
Melting Temperature <sup>6</sup>	437 °F	225 °C	ISO 11357-3
CLTE			ISO 11359-2
Flow : 73 to 131°F (23 to 55°C)	5.6E-5 in/in/°F	1.0E-4 cm/cm/°C	
Transverse : 73 to 131°F (23 to 55°C)	5.6E-5 in/in/°F	1.0E-4 cm/cm/°C	

Additional Information	Nominal Value (English)	Nominal Value (SI)
ISO Shortname	ISO 7792-1-PBT, GHMR, 09-030, GB20	ISO 7792-1-PBT, GHMR, 09-030, GB20

Injection	Nominal Value (English)	Nominal Value (SI)	Test Method
Drying Temperature - Circulation Dryer	248 °F	120 °C	
Drying Time - Circulation Dryer	4.0 to 8.0 hr	4.0 to 8.0 hr	
Processing (Melt) Temp	482 to 518 °F	250 to 270 °C	
Mold Temperature	176 to 212 °F	80 to 100 °C	
Residual Moisture Content	0.0 to 0.020 %	0.0 to 0.020 %	Karl Fisher

**Notes**<sup>1</sup> Typical properties: these are not to be construed as specifications.<sup>2</sup> 60x60x2mm, 4 hr<sup>3</sup> 60x60x2mm, 80°C MT, 600 bar<sup>4</sup> 0.079 in/min (2.0 mm/min)<sup>5</sup> 2 mm/min<sup>6</sup> 10°C/min

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### Where to Buy

#### Supplier

**LANXESS GmbH**

, Germany

**Telephone:** +49-221-8885-0

**Web:** <http://www.lanxess.de/>

#### Distributor

**ALBIS Plastic**

*ALBIS Plastic is a global distribution and compounding company. Contact ALBIS Plastic for availability of individual products per country.*

**Telephone:** +49-40-78105-0

**Web:** <http://www.albis.com/>

**Availability:** Austria, Belgium, China, Denmark, Estonia, Finland, France, Germany, Hong Kong, Ireland, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Portugal, Russian Federation, Spain, Sweden, Switzerland, Turkey, United Kingdom

