

# POCAN® B3235 00000 POS151

Polybutylene Terephthalate  
LANXESS GmbH

# PROSPECTOR®

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## Technical Data

### Product Description

PBT, 30 % glass fibers, injection molding, UV-stabilized

### General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe
Filler / Reinforcement	• Glass Fiber, 30% Filler by Weight
Additive	• UV Stabilizer
Features	• UV Stabilized
Processing Method	• Injection Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density (73°F (23°C))	1.55 g/cm <sup>3</sup>	1.55 g/cm <sup>3</sup>	ISO 1183
Apparent (Bulk) Density	0.70 g/cm <sup>3</sup>	0.70 g/cm <sup>3</sup>	ISO 60
Melt Volume-Flow Rate (MVR) (260°C/2.16 kg)	1.04 in <sup>3</sup> /10min	17.0 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>	1.1 %	1.1 %	
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>	0.40 %	0.40 %	
Water Absorption			ISO 62
Saturation, 73°F (23°C)	0.40 %	0.40 %	
Equilibrium, 73°F (23°C), 50% RH	0.10 %	0.10 %	
Viscosity Number (Reduced Viscosity)	95.0 ml/g	95.0 ml/g	ISO 1628

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus			
73°F (23°C)	1.38E+6 psi	9500 MPa	ASTM D638
73°F (23°C)	1.42E+6 psi	9800 MPa	ISO 527-2/1
Tensile Strength			
Break, 73°F (23°C)	19300 psi	133 MPa	ASTM D638
Break, 73°F (23°C)	20300 psi	140 MPa	ISO 527-2/5
Tensile Elongation			
Break, 73°F (23°C)	2.5 %	2.5 %	ASTM D638
Break, 73°F (23°C)	2.9 %	2.9 %	ISO 527-2/5
Tensile Creep Modulus			ISO 899-1
1 hr	1.42E+6 psi	9800 MPa	
1000 hr	1.29E+6 psi	8900 MPa	
Flexural Modulus			
73°F (23°C)	1.10E+6 psi	7600 MPa	ASTM D790
73°F (23°C) <sup>4</sup>	1.42E+6 psi	9800 MPa	ISO 178/A
Flexural Strength			
73°F (23°C)	27600 psi	190 MPa	ASTM D790
73°F (23°C) <sup>4</sup>	32600 psi	225 MPa	ISO 178/A
Flexural Strain at Flexural Strength <sup>5</sup>			ISO 178/A
73°F (23°C)	3.4 %	3.4 %	

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>	



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Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	29 ft·lb/in <sup>2</sup>	60 kJ/m <sup>2</sup>	
73°F (23°C)	31 ft·lb/in <sup>2</sup>	65 kJ/m <sup>2</sup>	
Notched Izod Impact Strength			ISO 180/1A
-40°F (-40°C)	< 4.8 ft·lb/in <sup>2</sup>	< 10 kJ/m <sup>2</sup>	
-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)	26 ft·lb/in <sup>2</sup>	55 kJ/m <sup>2</sup>	
73°F (23°C)	26 ft·lb/in <sup>2</sup>	55 kJ/m <sup>2</sup>	
Multi-Axial Instrumented Impact Energy			ISO 6603-2
-22°F (-30°C), Total Penetration Energy	1.84 ft·lb	2.50 J	
73°F (23°C), Total Penetration Energy	1.70 ft·lb	2.30 J	
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Ball Indentation Hardness	27600 psi	190 MPa	ISO 2039-1
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature			
66 psi (0.45 MPa), Unannealed	428 °F	220 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	410 °F	210 °C	ISO 75-2/A
1160 psi (8.0 MPa), Unannealed	329 °F	165 °C	ISO 75-2/C
Vicat Softening Temperature	419 °F	215 °C	ISO 306/B50
Ball Pressure Test (419°F (215°C))	Pass	Pass	IEC 60695-10-2
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)	1.7E-5 in/in/°F	3.0E-5 cm/cm/°C	
Transverse : 73 to 131°F (23 to 55°C)	6.1E-5 in/in/°F	1.1E-4 cm/cm/°C	
Thermal Conductivity (73°F (23°C))	1.8 Btu·in/hr/ft <sup>2</sup> /°F	0.26 W/m/K	ISO 8302
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Electric Strength			IEC 60243-1
73°F (23°C), 0.0394 in (1.00 mm)	740 V/mil	29 kV/mm	
Relative Permittivity			IEC 60250
73°F (23°C), 100 Hz	4.00	4.00	
73°F (23°C), 1 MHz	3.80	3.80	
Comparative Tracking Index (Solution A)	350 V	350 V	IEC 60112
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating			UL 94
0.030 in (0.75 mm)	HB	HB	
0.06 in (1.5 mm)	HB	HB	
Glow Wire Flammability Index			IEC 60695-2-12
0.08 in (2.0 mm)	1200 °F	650 °C	
Oxygen Index <sup>7</sup>	20 %	20 %	ISO 4589-2
Burning Behavior - US FMVSS302	passed	passed	ISO 3795
Additional Information	Nominal Value (English)	Nominal Value (SI)	Test Method
Electrolytical Corrosion (73°F (23°C))	A 1	A 1	IEC 60426
ISO Shortname	ISO 7792-1- PBT,GHLMR,09-10 0,GF30	ISO 7792-1- PBT,GHLMR,09-10 0,GF30	



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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<sup>7</sup> Procedure A

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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

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**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

