

Technical Data

Product Description

PBT, 12 % glass fibers, injection molding, flame retardant

General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe
Filler / Reinforcement	• Glass Fiber, 12% Filler by Weight
Additive	• Flame Retardant
Features	• Flame Retardant
Processing Method	• Injection Molding
Multi-Point Data	• Creep Modulus vs. Time (ISO 11403-1) • Isochronous Stress vs. Strain (ISO 11403-1) • Isothermal Stress vs. Strain (ISO 11403-1) • Secant Modulus vs. Strain (ISO 11403-1) • Shear Modulus vs. Temperature (ISO 11403-1) • Viscosity vs. Shear Rate (ISO 11403-2)
Resin ID (ISO 1043)	• PBT GF FR (17)

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density (73°F (23°C))	1.53 g/cm ³	1.53 g/cm ³	ISO 1183
Apparent (Bulk) Density	0.80 g/cm ³	0.80 g/cm ³	ISO 60
Melt Volume-Flow Rate (MVR) (260°C/2.16 kg)	1.34 in ³ /10min	22.0 cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow : 248°F (120°C), 0.0787 in (2.00 mm) ²	0.10 %	0.10 %	
Across Flow : 482°F (250°C), 0.0787 in (2.00 mm) ³	1.1 %	1.1 %	
Flow : 248°F (120°C), 0.0787 in (2.00 mm) ²	0.10 %	0.10 %	
Flow : 482°F (250°C), 0.0787 in (2.00 mm) ³	0.80 %	0.80 %	
Water Absorption			ISO 62
Saturation, 73°F (23°C)	0.30 %	0.30 %	
Equilibrium, 73°F (23°C), 50% RH	0.10 %	0.10 %	
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus (73°F (23°C))	841000 psi	5800 MPa	ISO 527-2/1
Tensile Stress (Break, 73°F (23°C))	14500 psi	100 MPa	ISO 527-2/5
Tensile Strain (Break, 73°F (23°C))	2.5 %	2.5 %	ISO 527-2/5
Tensile Creep Modulus			ISO 899-1
1 hr	798000 psi	5500 MPa	
1000 hr	725000 psi	5000 MPa	
Flexural Modulus ⁴ (73°F (23°C))	827000 psi	5700 MPa	ISO 178/A
Flexural Stress ⁴ (73°F (23°C))	22500 psi	155 MPa	ISO 178/A
Flexural Strain at Flexural Strength ⁵			ISO 178/A
73°F (23°C)	3.2 %	3.2 %	



POCAN® B4215 000000

Polybutylene Terephthalate

LANXESS GmbH**PROSPECTOR®**

www.ulprospector.com

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 ²	< 10 kJ/m ²	
73°F (23°C)	< 4.8 ft·lb/in ²	< 10 kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	12 ft·lb/in ²	25 kJ/m ²	
73°F (23°C)	12 ft·lb/in ²	25 kJ/m ²	
Notched Izod Impact Strength			ISO 180/1A
-40°F (-40°C)	< 4.8 ft·lb/in ²	< 10 kJ/m ²	
-22°F (-30°C)	< 4.8 ft·lb/in ²	< 10 kJ/m ²	
73°F (23°C)	< 4.8 ft·lb/in ²	< 10 kJ/m ²	
Unnotched Izod Impact Strength			ISO 180/1U
-22°F (-30°C)	9.5 ft·lb/in ²	20 kJ/m ²	
73°F (23°C)	9.5 ft·lb/in ²	20 kJ/m ²	
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Ball Indentation Hardness	26100 psi	180 MPa	ISO 2039-1
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature			
66 psi (0.45 MPa), Unannealed	410 °F	210 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	365 °F	185 °C	ISO 75-2/A
Vicat Softening Temperature	401 °F	205 °C	ISO 306/B120
Ball Pressure Test (401°F (205°C))	Pass	Pass	IEC 60695-10-2
Melting Temperature ⁶	437 °F	225 °C	ISO 11357-3
CLTE			ISO 11359-2
Flow : 73 to 131°F (23 to 55°C)	2.2E-5 in/in/°F	4.0E-5 cm/cm/°C	
Transverse : 73 to 131°F (23 to 55°C)	5.6E-5 in/in/°F	1.0E-4 cm/cm/°C	
Thermal Conductivity (73°F (23°C))	1.4 Btu·in/hr/ft ² /°F	0.20 W/m/K	ISO 8302
RTI Elec	266 °F	130 °C	UL 746
RTI Imp	266 °F	130 °C	UL 746
RTI Str	284 °F	140 °C	UL 746
Halving Interval			IEC 60216
Electric Strength	54.3 °F	12.4 °C	
Tensile Impact Strength	48.6 °F	9.2 °C	
Tensile Strength	53.1 °F	11.7 °C	
Temperature Index			IEC 60216
Electric Strength, 20000 hr	293 °F	145 °C	
Tensile Impact Strength, 20000 hr	275 °F	135 °C	
Tensile Strength, 20000 hr	284 °F	140 °C	
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Surface Resistivity	> 1.0E+15 ohms	> 1.0E+15 ohms	IEC 60093
Volume Resistivity (73°F (23°C))	> 1.0E+13 ohms·cm	> 1.0E+13 ohms·cm	IEC 60093
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	3.60	3.60	
73°F (23°C), 1 MHz	3.40	3.40	
Dissipation Factor			IEC 60250
73°F (23°C), 100 Hz	4.0E-3	4.0E-3	
73°F (23°C), 1 MHz	0.019	0.019	
Comparative Tracking Index (Solution A)	200 V	200 V	IEC 60112



POCAN® B4215 000000

Polybutylene Terephthalate

LANXESS GmbH**PROSPECTOR®**

www.ulprospector.com

Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating			UL 94
0.030 in (0.75 mm)	V-0	V-0	
0.06 in (1.5 mm)	V-0	V-0	
0.14 in (3.5 mm)	5VA	5VA	
Glow Wire Flammability Index			IEC 60695-2-12
0.08 in (2.0 mm)	1760 °F	960 °C	
Oxygen Index ⁷	32 %	32 %	ISO 4589-2
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, GFHMR, 09-060, GF12	ISO 7792-1-PBT, GFHMR, 09-060, GF12	
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	464 to 500 °F	240 to 260 °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

Notes¹ Typical properties: these are not to be construed as specifications.² 60x60x2mm, 4 hr³ 60x60x2mm, 80°C MT, 600 bar⁴ 0.079 in/min (2.0 mm/min)⁵ 2 mm/min⁶ 10°C/min⁷ Procedure A

POCAN® B4215 000000

Polybutylene Terephthalate

LANXESS GmbH

PROSPECTOR®

www.ulprospector.com

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

