

MatWeb, The Online Materials Database**LANXESS (EU) POCAN® B 1501 PBT, Injection Grade**

Subcategory: Polybutylene Terephthalate (PBT); Polyester, TP; Polymer; Thermoplastic

Close Analogs: LANXESS was spun-off from Bayer in early 2005.

Key Words: Polyester; Polybutylene Terephthalate

Material Notes:

PBT-injection molding grade, non-reinforced, medium viscosity, BgVV/FDA grade.

Applications: Other: Sinks, cocks for drink dispensers, cosmetic housings.

Information provided by Bayer.

Physical Properties	Metric	English	Comments
Density	1.3 g/cc	0.047 lb/in ³	
Water Absorption	0.5 %	0.5 %	Saturation in water
Moisture Absorption at Equilibrium	0.2 %	0.2 %	Equilibrium at 50% RH
Water Absorption at Saturation	0.5 %	0.5 %	
Melt Flow	18 g/10 min	18 g/10 min	260°C/2.16kg
Mechanical Properties			
Tensile Strength, Yield	60 MPa	8700 psi	
Elongation at Break	Min 50 %	Min 50 %	Nominal
Elongation at Yield	4 %	4 %	
Tensile Modulus	2.6 GPa	377 ksi	
Charpy Impact, Unnotched	NB	NB	
Charpy Impact, Unnotched Low Temp	0.5 J/cm ²	2.38 ft-lb/in ²	at -30°C
Charpy Impact, Notched	0.5 J/cm ²	2.38 ft-lb/in ²	
Tensile Creep Modulus, 1 hour	2200 MPa	319000 psi	
Tensile Creep Modulus, 1000 hours	1300 MPa	189000 psi	
Electrical Properties			
Electrical Resistivity	Min 1e+015 ohm-cm	Min 1e+015 ohm-cm	
Surface Resistance	Min 1e+015 ohm	Min 1e+015 ohm	
Dielectric Constant	3.2	3.2	1 MHz
Dielectric Constant, Low Frequency	3.4	3.4	100 Hz
Dielectric Strength	27 kV/mm	686 kV/in	
Dissipation Factor	0.02	0.02	1 MHz
Dissipation Factor, Low Frequency	0.002	0.002	100 Hz
Comparative Tracking Index	600 V	600 V	

Thermal Properties

CTE, linear 20°C	130 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	72.2 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	in flow direction
CTE, linear 20°C Transverse to Flow	110 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	61.1 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	
Melting Point	225 °C	437 °F	
Maximum Service Temperature, Air	70 °C	158 °F	Deflection temperature at 1.8 MPa
Deflection Temperature at 0.46 MPa (66 psi)	170 °C	338 °F	
Deflection Temperature at 1.8 MPa (264 psi)	70 °C	158 °F	
Vicat Softening Point	170 °C	338 °F	
Flammability, UL94	HB	HB	0.8 mm
Flammability, UL94	HB	HB	1.6 mm
Oxygen Index	24 %	24 %	

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