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LANXESS POCAN® S 7916 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/PC-Blend, injection molding grade, non-reinforced, elastomer modified, good low temperature impact properties, very good coating characteristic.

Applications: Automotive sector: car bumper, radiator grille.

Information provided by Bayer.

Physical Properties	Metric	English	Comments
Density	1.2 g/cc	0.0434 lb/in ³	
Water Absorption	0.4 %	0.4 %	Saturation in water
Moisture Absorption at Equilibrium	0.2 %	0.2 %	Equilibrium at 50% RH
Water Absorption at Saturation	0.4 %	0.4 %	
Melt Flow	5 g/10 min	5 g/10 min	260°C/2.16kg

Mechanical Properties

Tensile Strength, Yield	40 MPa	5800 psi	
Elongation at Break	Min 50 %	Min 50 %	Nominal
Elongation at Yield	4 %	4 %	
Tensile Modulus	1.7 GPa	247 ksi	
Charpy Impact Unnotched	NB	NB	
Charpy Impact, Unnotched Low Temp	6 J/cm ²	28.6 ft-lb/in ²	at -30°C
Charpy Impact, Notched	8 J/cm ²	38.1 ft-lb/in ²	
Tensile Creep Modulus, 1 hour	1500 MPa	218000 psi	
Tensile Creep Modulus, 1000 hours	1200 MPa	174000 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	2.9	2.9	1 MHz
Dielectric Constant, Low Frequency	3.1	3.1	100 Hz
Dielectric Strength	22 kV/mm	559 kV/in	
Dissipation Factor	0.014	0.014	1 MHz
Dissipation Factor, Low Frequency	0.0023	0.0023	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	130 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	72.2 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	
Melting Point	225 °C	437 °F	
Deflection Temperature at 0.46 MPa (66 psi)	110 °C	230 °F	
Deflection Temperature at 1.8 MPa (264 psi)	60 °C	140 °F	
Vicat Softening Point	115 °C	239 °F	
Flammability, UL94	HB	HB	1.6 mm
Oxygen Index	20 %	20 %	

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