

Covestro Makroblend® S 7916/2 Polycarbonate + PBT, Impact Grade

Category : Polymer , Thermoplastic , Polycarbonate (PC) , Polycarbonate/Polybutylene Terephthalate (PBT) Blend, Unreinforced , Polyester, TP , Polybutylene Terephthalate (PBT)

Material Notes:

ISO 7792-1-PBT/PC,MHPR,-020(PBT+PC)-blends impact modified Injection molding grade excellent chemical resistance high toughness at low temperatures ideal for painted applications unreinforced Preprocessing Max. Water content

Order this product through the following link:

http://www.lookpolymers.com/polymer_Covestro-Makroblend-S-79162-Polycarbonate-PBT-Impact-Grade.php

Physical Properties	Metric	English	Comments
Density	1.20 g/cc	0.0434 lb/in ³	ISO 1183
	1.02 g/cc @Temperature 260 °C	0.0368 lb/in ³ @Temperature 500 °F	Melt
Water Absorption	0.50 %	0.50 %	Similar to ISO 62
Moisture Absorption at Equilibrium	0.20 %	0.20 %	Similar to ISO 62
Melt Flow	15 g/10 min	15 g/10 min	ISO 1133
	@Load 5.00 kg, Temperature 260 °C	@Load 11.0 lb, Temperature 500 °F	

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	45.0 MPa	6530 psi	ISO 527-1/-2
Elongation at Break	>= 50 %	>= 50 %	Nominal; ISO 527-1/-2
Elongation at Yield	4.0 %	4.0 %	ISO 527-1/-2
Tensile Modulus	1.90 GPa	276 ksi	ISO 527-1/-2
Charpy Impact Unnotched	NB	NB	ISO 179/1eU
	NB @Temperature -30.0 °C	NB @Temperature -22.0 °F	ISO 179/1eU
Charpy Impact, Notched	7.00 J/cm ²	33.3 ft-lb/in ²	ISO 179/1eA
	2.50 J/cm ² @Temperature -30.0 °C	11.9 ft-lb/in ² @Temperature -22.0 °F	ISO 179/1eA
Tensile Creep Modulus, 1 hour	1600 MPa	232000 psi	ISO 899-1
Tensile Creep Modulus, 1000 hours	1200 MPa	174000 psi	ISO 899-1

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	110 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	61.1 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	ISO 11359-1/-2
CTE, linear, Transverse to Flow	110 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	61.1 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	ISO 11359-1/-2
Specific Heat Capacity	1.87 $\text{J}/\text{g}\cdot^{\circ}\text{C}$	0.447 $\text{BTU}/\text{lb}\cdot^{\circ}\text{F}$	Melt
Thermal Conductivity	0.184 $\text{W}/\text{m}\cdot\text{K}$	1.28 $\text{BTU}\cdot\text{in}/\text{hr}\cdot\text{ft}^2\cdot^{\circ}\text{F}$	Melt
Melting Point	223 $^{\circ}\text{C}$	433 $^{\circ}\text{F}$	ISO 11357-1/-3
Deflection Temperature at 0.46 MPa (66 psi)	115 $^{\circ}\text{C}$	239 $^{\circ}\text{F}$	ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	65.0 $^{\circ}\text{C}$	149 $^{\circ}\text{F}$	ISO 75-1/-2
Vicat Softening Point	120 $^{\circ}\text{C}$	248 $^{\circ}\text{F}$	50 $^{\circ}\text{C}/\text{h}$ 50N; ISO 306
Flammability, UL94	HB	HB	IEC 60695-11-10
	@Thickness 1.60 mm	@Thickness 0.0630 in	
Oxygen Index	21 %	21 %	ISO 4589-1/-2

Electrical Properties	Metric	English	Comments
Volume Resistivity	$\geq 1.00\text{e}+13$ ohm-cm	$\geq 1.00\text{e}+13$ ohm-cm	IEC 60093
Surface Resistance	$\geq 1.00\text{e}+15$ ohm	$\geq 1.00\text{e}+15$ ohm	IEC 60093
Dielectric Constant	3.0	3.0	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Dielectric Strength	3.1	3.1	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Dielectric Strength	31.0 kV/mm	787 kV/in	IEC 60243-1
Dissipation Factor	0.0015	0.0015	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Comparative Tracking Index	0.015	0.015	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Comparative Tracking Index	600 V	600 V	IEC 60112

Processing Properties	Metric	English	Comments
Melt Temperature	250 - 270 $^{\circ}\text{C}$	482 - 518 $^{\circ}\text{F}$	

Processing Properties	Metric	English	Comments
	260 °C	500 °F	Injection Molding; ISO 294
Mold Temperature	60.0 - 80.0 °C	140 - 176 °F	
	70.0 °C	158 °F	Injection Molding; ISO 10724
Ejection Temperature	170 °C	338 °F	
Injection Velocity	200 mm/sec	7.87 in/sec	ISO 294

Descriptive Properties	Value	Comments
Availability	Asia Pacific	
	Europe	
	India	
	Near East/Africa	
	North America	
	South and Central America	
Eff. thermal diffusivity (m ² /s)	9.65E-08	
Feature	Release agent	
Form	Pellets	
Process	Injection Molding	

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