

Makroblend® S7916

Polycarbonate + PBT

Covestro - Polycarbonates

Message:

(PBT+PC)-blend, impact modified, Injection molding grade, excellent chemical resistance, high toughness at low temperatures, ideal for painted applications, unreinforced

General Information			
Additive	Impact Modifier		
Features	Good Chemical Resistance		
	Impact Modified		
	Low Temperature Toughness		
	Paintable		
RoHS Compliance	RoHS Compliant		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density (23°C)	1.20	g/cm ³	ISO 1183
Apparent Density	0.70	g/cm ³	ISO 60
Melt Volume-Flow Rate (MVR) (260°C/5.0 kg)	13.0	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 2577
Across Flow ¹	1.2 to 1.6	%	
Across Flow : 90°C, 1 hr	0.10 to 0.20	%	
Flow ²	1.2 to 1.6	%	
Flow : 90°C, 1 hr	0.10 to 0.20	%	
Water Absorption			ISO 62
Saturation, 23°C	0.50	%	
Equilibrium, 23°C, 50% RH	0.20	%	
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness	85.0	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	1800	MPa	ISO 527-2/1
Tensile Stress			ISO 527-2/50
Yield, 23°C	40.0	MPa	
Break, 23°C	35.0	MPa	
Tensile Strain (Yield, 23°C)	4.0	%	ISO 527-2/50
Nominal Tensile Strain at Break (23°C)	> 50	%	ISO 527-2/50
Tensile Creep Modulus			ISO 899-1
1 hr	1500	MPa	
1000 hr	1200	MPa	

Flexural Modulus ³ (23°C)	1700	MPa	ISO 178
Flexural Stress ⁴			ISO 178
23°C	63.0	MPa	
3.5% Strain,23°C	54.0	MPa	
Flexural Strain at Flexural Strength ⁵ (23°C)	5.0	%	ISO 178
Burning Rate - US-FMVSS (> 1.00 mm)	passed		ISO 3795
Electrolytical Corrosion (23°C)	A1		IEC 60426
Gottfert Melt Viscosity ⁶ (260°C)	640	Pa·s	Internal Method
ISO Shortname	ISO 7792-1-PBT/PC,MHPR,-020		
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	69	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	No Break		
23°C	No Break		
Notched Izod Impact Strength			ISO 180/A
-30°C	47	kJ/m ²	
23°C	66	kJ/m ²	
Unnotched Izod Impact Strength			ISO 180
-30°C	No Break		
23°C	No Break		
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed	91.0	°C	ISO 75-2/B
1.8 MPa, Unannealed	60.0	°C	ISO 75-2/A
Vicat Softening Temperature	119	°C	ISO 306/B120
CLTE			ISO 11359-2
Flow : 23 to 55°C	1.1E-4	cm/cm/°C	
Transverse : 23 to 55°C	1.1E-4	cm/cm/°C	
Thermal Conductivity ⁷ (23°C)	0.20	W/m/K	ISO 8302
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+17	ohms	IEC 60093
Volume Resistivity (23°C)	> 1.0E+17	ohms·cm	IEC 60093
Relative Permittivity			IEC 60250
23°C, 100 Hz	3.10		
23°C, 1 MHz	2.90		
Dissipation Factor			IEC 60250
23°C, 100 Hz	2.3E-3		
23°C, 1 MHz	0.014		
Comparative Tracking Index			IEC 60112
Solution A	600	V	
Solution B	400	V	
Flammability	Nominal Value	Unit	Test Method

Flame Rating			UL 94
0.800 mm	HB		
1.60 mm	HB		
Glow Wire Flammability Index (2.00 mm)	650	°C	IEC 60695-2-12
Oxygen Index ⁸	20	%	ISO 4589-2

NOTE

- | | |
|----|-------------|
| 1. | 600 bar |
| 2. | 600 bar |
| 3. | 2.0 mm/min |
| 4. | 2.0 mm/min |
| 5. | 2 mm/min |
| 6. | 165/s |
| 7. | Cross-flow |
| 8. | Procedure A |

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