

Makroblend® SR60

Covestro - Polycarbonates - Polycarbonate + PBT

General Information

Product Description

(PC+PBT)-blend, mineral filled, excellent chemical resistance, improved scratch resistance, injection molding grade.

General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • North America • Asia Pacific • Latin America
Filler / Reinforcement	• Mineral
Features	• Chemical Resistant • Good Scratch Resistance
RoHS Compliance	• RoHS Compliant
Processing Method	• Injection Molding
ISO Designation	• PC+PBT-I-QD5

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density (73°F)	1.24	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (260°C/5.0 kg)	22	cm ³ /10min	ISO 1133
Molding Shrinkage ²			ISO 294-4
Across Flow : 500°F, 0.0787 in	0.99	%	
Flow : 500°F, 0.0787 in	0.99	%	
Water Absorption (Saturation, 73°F)	0.50	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.20	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (73°F)	334000	psi	ISO 527-1/1
Tensile Stress (Yield, 73°F)	8120	psi	ISO 527-2/50
Tensile Stress (Break, 73°F)	6240	psi	ISO 527-2/50
Tensile Strain (Yield, 73°F)	4.4	%	ISO 527-2/50
Flexural Modulus ³ (73°F)	325000	psi	ISO 178
Flexural Stress ³ (73°F)	12000	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	No Break		
73°F	No Break		
Notched Izod Impact Strength			
-22°F	7.6	ft·lb/in ²	ISO 180/A
-22°F	No Break		ISO 180/1C
73°F	19	ft·lb/in ²	ISO 180/A
73°F	No Break		ISO 180/1C
Multi-Axial Instrumented Impact Energy			ISO 6603-2
-22°F	33.2	ft·lb	
73°F	30.2	ft·lb	
Multi-Axial Instrumented Impact Peak Force			ISO 6603-2
-22°F	1130	lbf	
73°F	866	lbf	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (66 psi, Unannealed)	223	°F	ISO 75-2/B
Deflection Temperature Under Load (264 psi, Unannealed)	178	°F	ISO 75-2/A
Vicat Softening Temperature			



--	255 °F	ISO 306/B120
--	252 °F	ISO 306/B50
CLTE - Flow (73 to 131°F)	5.6E-5 in/in/°F	ISO 11359-2
CLTE - Transverse (73 to 131°F)	5.6E-5 in/in/°F	ISO 11359-2
Thermal Conductivity ⁴ (73°F)	1.5 Btu·in/hr/ft ² /°F	ISO 8302
Electrical	Nominal Value Unit	Test Method
Surface Resistivity	1.0E+15 ohms	IEC 60093
Volume Resistivity (73°F)	1.0E+17 ohms·cm	IEC 60093
Electric Strength (0.0394 in)	860 V/mil	IEC 60243-1
Comparative Tracking Index (Solution A)	175 V	IEC 60112
Flammability	Nominal Value Unit	Test Method
Flame Rating (0.03 in, Internal Test)	HB	UL 94

Processing Information

Injection	Nominal Value Unit
Drying Temperature - Dry Air Dryer	221 °F
Drying Time - Dry Air Dryer	2.0 to 4.0 hr
Suggested Max Moisture	< 0.020 %
Suggested Shot Size	30 to 70 %
Rear Temperature	446 to 464 °F
Middle Temperature	464 to 482 °F
Front Temperature	482 to 500 °F
Nozzle Temperature	500 to 518 °F
Processing (Melt) Temp	482 to 518 °F
Mold Temperature	140 to 176 °F
Back Pressure	725 to 1450 psi
Vent Depth	9.8E-4 to 3.0E-3 in
Injection Notes	
Peripheral Screw Speed: 0.1-0.2 m/s	
Hold Pressure (% of Injection Pressure): 50 - 75%	
Standard Melt Temperature: 260°C	

Notes

¹ Typical properties: these are not to be construed as specifications.

² 500 bar

³ 0.079 in/min

⁴ Across Flow

