Bayer MaterialScience Makrolon® 6267 Polycarbonate, Flame Retardant Grade

Categories: Polymer; Thermoplastic; Polycarbonate; Polycarbonate, Molded

Material Notes:

- ISO 7391-PC,MFLR,(,,)-18-9
- Formerly Makrolon DP1-1872
- MVR (300 °C/1.2 kg) 19 cm³/10 min
- Flame retardant
- UL 94V-0/1.5 mm
- Low viscosity
- UV stabilized
- Easy release
- Injection molding - Melt temperature 280 - 320 °C
- Available in opaque colors only

Preprocessing

Max. Water content	0.02 %
Drying temperature	120 °C
Drying time	
Circulating air drying oven (50 % fresh air)	4-12 h
Fresh air dryer (high speed dryer)	2-4 h
Dry air dryer	2-3 h

Processing

Melt temperature	280-320 °C
Mold temperature	80-120 °C

Vendors: No vendors are listed for this material. Please click here if you are a supplier and would like information on how to add your listing to this material.

Physical Properties	Metric	English	Comments
Density	1.20 g/cc	0.0434 lb/in³	ISO 1183
	1.02 g/cc @Temperature 280 °C	0.0368 lb/in³ @Temperature 536 °F	Melt
Water Absorption	0.300 %	0.300 %	Similar to ISO 62
Moisture Absorption at Equilibrium	0.120 %	0.120 %	Similar to ISO 62
Linear Mold Shrinkage, Flow	0.00700 cm/cm	0.00700 in/in	parallel; ISO 294-4,2577
Linear Mold Shrinkage, Transverse	0.00700 cm/cm	0.00700 in/in	ISO 294-4,2577
Melt Flow	19.0 g/10 min @Load 1.20 kg, Temperature 300 °C	19.0 g/10 min @Load 2.65 lb, Temperature 572 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	67.0 MPa	9720 psi	ISO 527-1/-2
Elongation at Break	>= 50.0 %	>= 50.0 %	Nominal; ISO 527-1/-2
Elongation at Yield	6.00 %	6.00 %	ISO 527-1/-2
Tensile Modulus	2.45 GPa	355 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
Impact	5000	5000	Puncture - maximum force (N); ISO 6603-2
	5900 @Temperature -30.0 °C	5900 @Temperature -22.0 °F	Puncture - maximum force (N); ISO 6603-2
Puncture Energy	50.0 J	36.9 ft-lb	ISO 6603-2
	55.0 J @Temperature -30.0 °C	40.6 ft-lb @Temperature -22.0 °F	ISO 6603-2

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+13 ohm-cm	>= 1.00e+13 ohm-cm	IEC 60093
Surface Resistance	>= 1.00e+15 ohm	>= 1.00e+15 ohm	IEC 60093
Dielectric Constant	3.00 @Frequency 1.00e+6 Hz	3.00 @Frequency 1.00e+6 Hz	IEC 60250
	3.10 @Frequency 100 Hz	3.10 @Frequency 100 Hz	IEC 60250
Dielectric Strength	34.0 kV/mm	864 kV/in	IEC 60243-1
Dissipation Factor	0.000800 @Frequency 100 Hz	0.000800 @Frequency 100 Hz	IEC 60250
	0.00900	0.00900	IEC 60250

	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Comparative Tracking Index	225 V	225 V	IEC 60112

Thermal Properties	Metric	English	Comments
CTE, linear	65.0 µm/m-°C	36.1 µin/in-°F	parallel; ISO 11359-1/-2
CTE, linear, Transverse to Flow	65.0 µm/m-°C	36.1 µin/in-°F	ISO 11359-1/-2
Specific Heat Capacity	1.70 J/g-°C	0.406 BTU/lb-°F	Melt
Thermal Conductivity	0.173 W/m-K	1.20 BTU-in/hr-ft²-°F	Melt
Deflection Temperature at 0.46 MPa (66 psi)	134 °C	273 °F	ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	122 °C	252 °F	ISO 75-1/-2
Vicat Softening Point	144 °C	291 °F	50°C/h 50N; ISO 306
Flammability, UL94	V-0 @Thickness 1.50 mm	V-0 @Thickness 0.0591 in	IEC 60695-11-10
	V-0 @Thickness 3.00 mm	V-0 @Thickness 0.118 in	IEC 60695-11-10
Oxygen Index	35.0 %	35.0 %	ISO 4589-1/-2

Processing Properties	Metric	English	Comments
Melt Temperature	280 °C	536 °F	Injection Molding; ISO 294
	280 - 320 °C	536 - 608 °F	
Mold Temperature	80.0 °C	176 °F	Injection Molding; ISO 10724
	80.0 - 120 °C	176 - 248 °F	
Ejection Temperature	130 °C	266 °F	
Injection Velocity	200 mm/sec	7.87 in/sec	ISO 294

Descriptive Properties		
Availability	Asia Pacific	
	Europe	
	India	
	Near East/Africa	
	North America	
	South and Central America	
Eff. thermal diffusivity (m²/s)	1E-07	
Feature	Light stabilised or stable to light	
	Release agent	
	U.V. stabilised or stable to weather	
Form	Pellets	
Process	Injection Molding	
UL recognition	UL\l1.5\n	
	UL\lh\n	