

Makrolon® GF8002

Polycarbonate

Covestro - Polycarbonates

Message:

MVR (300 °C/1.2 kg) 10 cm³/10 min; 15 % glass fiber reinforced; medium viscosity; easy release; injection molding - melt temperature 310 - 330 °C; available in opaque colors only

General Information			
Filler / Reinforcement	Glass Fiber,15% Filler by Weight		
Features	Good Mold Release		
	Medium Viscosity		
RoHS Compliance	RoHS Compliant		
Appearance	Colors Available		
	Opaque		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density (23°C)	1.29	g/cm ³	ISO 1183
Apparent Density ¹	0.64	g/cm ³	ISO 60
Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)	11	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	9.00	cm ³ /10min	ISO 1133
Molding Shrinkage ²			ISO 294-4
Across Flow : 2.00 mm	0.42	%	
Flow : 2.00 mm	0.40	%	
Water Absorption			ISO 62
Saturation, 23°C	0.28	%	
Equilibrium, 23°C, 50% RH	0.10	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	4600	MPa	ISO 527-2/1
Tensile Stress			ISO 527-2/5
Yield, 23°C	63.0	MPa	
Break, 23°C	45.0	MPa	
Tensile Strain			ISO 527-2/5
Yield, 23°C	4.4	%	
Break, 23°C	10	%	
Flexural Modulus ³ (23°C)	4500	MPa	ISO 178
Flexural Stress ⁴			ISO 178
3.5% Strain,23°C	95.0	MPa	
23°C	105	MPa	

Flexural Strain at Flexural Strength ⁵ (23°C)	5.3	%	ISO 178
ISO Shortname	ISO 7391-PC,MR,(,,)-09-9,GF15		
Impact	Nominal Value	Unit	Test Method
Charpy Unnotched Impact Strength (23°C, Complete Break)	110	kJ/m ²	ISO 179/1eU
Multi-Axial Instrumented Impact Energy			ISO 6603-2
-30°C	6.00	J	
23°C	18.0	J	
Multi-Axial Instrumented Impact Peak Force			ISO 6603-2
-30°C	2000	N	
23°C	3400	N	
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed	140	°C	ISO 75-2/B
1.8 MPa, Unannealed	134	°C	ISO 75-2/A
Vicat Softening Temperature	141	°C	ISO 306/B50
CLTE			ISO 11359-2
Flow : 23 to 55°C	3.5E-5	cm/cm/°C	
Transverse : 23 to 55°C	6.4E-5	cm/cm/°C	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+16	ohms	IEC 60093
Volume Resistivity (23°C)	1.0E+16	ohms·cm	IEC 60093
Electric Strength (23°C, 1.00 mm)	39	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
23°C, 100 Hz	3.20		
23°C, 1 MHz	3.20		
Dissipation Factor			IEC 60250
23°C, 100 Hz	1.0E-3		
23°C, 1 MHz	9.0E-3		
Comparative Tracking Index			IEC 60112
Solution A	175	V	
Solution B	125	V	
Flammability	Nominal Value	Unit	Test Method
Glow Wire Flammability Index			IEC 60695-2-12
1.50 mm	960	°C	
3.00 mm	960	°C	
Oxygen Index ⁶	31	%	ISO 4589-2
NOTE			
1.	Pellets		
2.	60x60x2 mm		
3.	2.0 mm/min		
4.	2.0 mm/min		

5.	2 mm/min
6.	Procedure A

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