

Raschig Group MELOPLAS® 181 MF

Category : Polymer , Thermoset , Melamine , Melamine-Phenolic Copolymer , Phenolic

Material Notes:

Cellulose-reinforced, phenol-modified MF molding compound (MPF) in white and colored shades. High surface hardness, good electrical properties, good mechanical strength, high UV and heat resistance. Self-extinguishing (V-0/1,6 according to UL 94), UL-listed in all colors. Free of halogens and toxic heavy metals. Supervised according ISO 14529-3, DIN 7708: MP 181, ISO 800: MPF A11, ISO 14529-3: MP (LD35)-(LD45). Forms: Low dust granulate packed in moisture resistant bags. Standard bag size: 25 kg palletized in 1.000 kg loads or big-bags. Procession: Injection or compression. Applications: Pan handles, Household appliances (casings). Information provided by the Raschig Group

Order this product through the following link:

http://www.lookpolymers.com/polymer_Raschig-Group-MELOPLAS-181-MF.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.50 - 1.70 g/cc	1.50 - 1.70 g/cc	ISO 1183
Apparent Bulk Density	0.550 - 0.750 g/cc	0.0199 - 0.0271 lb/in ³	ISO 60
Water Absorption	<= 2.0 % @Temperature 23.0 °C, Time 86400 sec	<= 2.0 % @Temperature 73.4 °F, Time 24.0 hour	ISO 62
Linear Mold Shrinkage	0.0060 - 0.010 cm/cm	0.0060 - 0.010 in/in	(longitudinal) Compression; ISO 2577
	0.0090 - 0.013 cm/cm	0.0090 - 0.013 in/in	(longitudinal) Injection; ISO 2257

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	45.0 - 65.0 MPa	6530 - 9430 psi	Compression; ISO 527
	60.0 - 85.0 MPa	8700 - 12300 psi	Injection; ISO 527
Modulus of Elasticity	5.00 - 8.00 GPa	725 - 1160 ksi	Injection and Compression; ISO 527
Flexural Strength	80.0 - 110 MPa	11600 - 16000 psi	Compression; ISO 178
	100 - 130 MPa	14500 - 18900 psi	Injection; ISO 178
Flexural Modulus	7.00 - 9.00 GPa	1020 - 1310 ksi	Injection and Compression; ISO 178
Compressive Strength	200 - 250 MPa	29000 - 36300 psi	ISO 604
Charpy Impact Unnotched	0.500 - 0.900 J/cm ² @Temperature 23.0 °C	2.38 - 4.28 ft-lb/in ² @Temperature 73.4 °F	Compression; ISO 179/ 1eU
	0.700 - 1.10 J/cm ² @Temperature 23.0 °C	3.33 - 5.24 ft-lb/in ² @Temperature 73.4 °F	Injection; ISO 179/ 1eU

Mechanical Properties	Metric	English	Comments
Charpy Impact, Notched	0.180 J/cm ²	0.857 ft-lb/in ²	Compression; ISO 179/ 1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	0.140 - 0.200 J/cm ²	0.666 - 0.952 ft-lb/in ²	Injection; ISO 179/ 1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear	15.0 - 35.0 µm/m-°C	8.33 - 19.4 µin/in-°F	ISO 11359-2
	@Temperature 50.0 - 100 °C	@Temperature 122 - 212 °F	
Thermal Conductivity	0.500 - 0.600 W/m-K	3.47 - 4.16 BTU-in/hr-ft ² -°F	DIN 52 612
Maximum Service Temperature, Air	135 °C	275 °F	20,000 h; IEC 216/T1
	160 °C	320 °F	< 50 h; IEC 216/T1
Deflection Temperature at 1.8 MPa (264 psi)	155 - 180 °C	311 - 356 °F	Injection and Compression; ISO 75-A
Deflection Temperature at 8.0 MPa	110 - 130 °C	230 - 266 °F	Injection and Compression; ISO 75-C
Flammability, UL94	V-0	V-0	
	@Thickness 1.50 mm	@Thickness 0.0591 in	
Shrinkage	1.0 - 1.5 %	1.0 - 1.5 %	Post-shrinkage; ISO 2577
	@Temperature 110 °C, Time 605000 sec	@Temperature 230 °F, Time 168 hour	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+11 - 1.00e+12 ohm-cm	1.00e+11 - 1.00e+12 ohm-cm	IEC 60093
Surface Resistance	1.00e+10 - 1.00e+11 ohm	1.00e+10 - 1.00e+11 ohm	IEC 60093
Dielectric Constant	7.0 - 9.0	7.0 - 9.0	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Dielectric Strength	11 - 16	11 - 16	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Dielectric Strength	15.0 - 20.0 kV/mm	381 - 508 kV/in	IEC 60243-1
Dissipation Factor	0.030 - 0.050	0.030 - 0.050	IEC 60250
	@Frequency 1.00e+6	@Frequency 1.00e+6	

Electrical Properties	Hz Metric	Hz English	Comments
	0.30 - 0.50	0.30 - 0.50	IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Arc Resistance	125 - 135 sec	125 - 135 sec	ASTM D495
Comparative Tracking Index	>= 250 V	>= 250 V	CTI; IEC 60112

Processing Properties	Metric	English	Comments
	6.00 Month	6.00 Month	
Shelf Life	@Temperature 15.0 - 25.0 °C	@Temperature 59.0 - 77.0 °F	

Descriptive Properties	Value	Comments
Arc Resistance	5 Stufe	ASTM D495
Glow wire ignitability test	900/1	IEC 60695 2-13
Glow-wire flammability test	960/1	IEC 60695 2-12
Water Absorption	<115 mg	ISO 62; 24h / 23°C

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China