MELOPAS® MP 183

Melamine Phenolic

RASCHIG GmbH

Message:

Cellulose reinforced phenol-modified Melamine moulding compound
Improved dimensional stability and electrical properties compared to MP 181, excellent surface hardness, good mechanical strength and heat resistance, good wear and UV-stability
Moulded parts in electrical engineering
This product meets the allowed upper limits for heavy metals and PCAs and also conforms to the requirements of the EU directives 2002/95 (RoHS), 2002/96 (WEEE) and 2006/122 (PFOS)
Identification according to ISO 14529-1: MP (LD20 + MD30) - (LD30 + MD20)
DIN 7708: MP 183

General Information	
UL YellowCard	E75850-249895
Filler / Reinforcement	Cellulose
Features	Good Strength Good UV Resistance Good Wear Resistance High Hardness Medium Heat Resistance
Uses	Electrical Parts
Agency Ratings	EU 2002/96/EC (WEEE) EU 2006/122/EC
RoHS Compliance	RoHS Compliant
Forms	Granules
Processing Method	Compression Molding Injection Molding

Physical	Nominal Value	Unit	Test Method
Density	1.60 to 1.70	g/cm³	ISO 1183
Apparent Density	0.55 to 0.75	g/cm³	ISO 60
Molding Shrinkage - Flow			ISO 2577
-- [1]	0.40 to 0.80	%	
-- [2]	0.70 to 1.1	%	
Water Absorption (23°C, 24 hr)	< 1.7	%	ISO 62
Post Shrinkage [3]	1.0 to 1.5	%	ISO 2577
Maximum Service Temperature			IEC 60216
<50 h	160	°C	
20,000 h	135	°C	

Compression Molding Molding Pressure	> 20.0	MPa	
Compression Molding Temperature	160 to 180	°C	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus			ISO 527-2
Compression Molded	5000 to 8000	MPa	
Injection Molded	5000 to 8000	MPa	
Tensile Stress			ISO 527-2
Compression Molded	40.0 to 65.0	MPa	
Injection Molded	50.0 to 80.0	MPa	
Flexural Modulus			ISO 178
Compression Molded	8000 to 9000	MPa	
Injection Molded	8000 to 9000	MPa	
Flexural Stress			ISO 178
Compression Molded	70.0 to 100	MPa	
Injection Molded	90.0 to 120	MPa	
Compressive Stress	200 to 250	MPa	ISO 604
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
Compression Molded	1.2 to 1.8	kJ/m^2	
Injection Molded	1.3 to 2.0	kJ/m^2	
Charpy Unnotched Impact Strength			ISO 179/1eU
Compression Molded	5.0 to 8.0	kJ/m^2	
Injection Molded	7.0 to 10	kJ/m^2	
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature			
1.8 MPa, Unannealed	155 to 180	°C	ISO 75-2/A
8.0 MPa, Unannealed	110 to 130	°C	ISO 75-2/C
CLTE - Flow (50 to 100°C)	1.5E-5 to 3.5E-5	cm/cm/°C	ISO 11359-2
Thermal Conductivity	0.40 to 0.50	W/m/K	ASTM E1461
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	1.0E+10 to 1.0E+11	ohms	IEC 60093
Volume Resistivity	1.0E+11 to 1.0E+12	ohms·cm	IEC 60093
Electric Strength	20 to 25	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
	16.0		
100 Hz	11.0		

	9.00		
1 MHz	7.00		
Dissipation Factor			IEC 60250
100 Hz	0.30 to 0.50		
1 MHz	0.030 to 0.050		
Arc Resistance	PLC 5		ASTM D495
Comparative Tracking Index	600	V	IEC 60112
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (1.50 mm)	V-0		UL 94
Glow Wire Flammability Index	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature	900	°C	IEC 60695-2-13
Injection	**Nominal Value**	**Unit**	
Middle Temperature	70.0 to 90.0	°C	
Front Temperature	90.0 to 100	°C	
Processing (Melt) Temp	100 to 115	°C	
Mold Temperature	160 to 180	°C	
Back Pressure	0.800 to 1.20	MPa	
Screw Speed	80 to 120	rpm	
NOTE			
1.	Compression Molded		
2.	Injection Molded		
3.	168 h / 110°C		

Recommended distributors for this material

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