

Menzolit® SMC 2500

Thermoset Polyester

Menzolit Ltd (UK)

Message:

Menzolit® SMC 2500 is a sheet moulding compound based on unsaturated polyester resin. The product is glass fibre reinforced and contains mineral fillers. In case of fire the product doesn't melt, neither does it form droplets nor is smoke generation excessive. The material is compression moulded in heated steel moulds. It is recommended to work with chrome plated tools. The product contains no halogens.

Menzolit® SMC 2500 is a special SMC for high voltage isolating applications. The glass level has been selected to combine good mouldability with good strength and stiffness properties. Even without a specific fire retardant, the fire retardancy level HB according to UL 94 is achieved. The electrical properties have been improved to achieve high isolating properties. When moulding this material, a high moulding pressure is very important. Only highly densified material guarantees the high isolating properties. Typical applications are isolating components and functional components within high voltage power systems. The material can be used within a SF6 atmosphere.

General Information			
Filler / Reinforcement	Glass\Mineral,25% Filler by Weight		
Features	Flame Retardant		
	Good Electrical Properties		
	Good Moldability		
	Good Stiffness		
	Good Strength		
	Halogen Free		
	High Heat Resistance		
	Low Smoke Emission		
Uses	Electrical/Electronic Applications		
Appearance	Colors Available		
Forms	SMC - Sheet Molding Compound		
Processing Method	Compression Molding		
Part Marking Code (ISO 11469)	>UP-(MD+GF)67<		
Physical	Nominal Value	Unit	Test Method
Density	1.80	g/cm ³	ISO 1183
Molding Shrinkage			
-- ¹	0.0	%	DIN 53464
--	0.050	%	ISO 2577
Water Absorption (Saturation, 23°C)	< 0.30	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (Compression Molded)	11000	MPa	ISO 527-2
Tensile Stress (Yield, Compression Molded)	60.0	MPa	ISO 527-2
Flexural Modulus (Compression Molded)	9000	MPa	ISO 178
Flexural Stress (Compression Molded)	145	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (Compression Molded)	65	kJ/m ²	ISO 179

Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	> 200	°C	ISO 75-2/A
Continuous Use Temperature	165	°C	Internal Method
Glass Transition Temperature	170	°C	DSC
CLTE - Flow	1.2E-5	cm/cm/°C	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+13	ohms	IEC 60093
Volume Resistivity	1.0E+16	ohms·cm	IEC 60093
Electric Strength	36	kV/mm	IEC 60243-1
Dissipation Factor	0.010		IEC 60250
Comparative Tracking Index	600	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating (3.00 mm)	HB		UL 94
Oxygen Index	22	%	ISO 4589-2
Injection	Nominal Value	Unit	
Mold Temperature	135 to 150	°C	
Injection Pressure	20.0 to 25.0	MPa	
NOTE			

1. Post Molding Shrinkage

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Recommended distributors for this material

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