

Menzolit® SMC 0500

Thermoset Polyester

Menzolit Ltd (UK)

Message:

Menzolit® SMC 0500 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 nor heavy metals.

Menzolit® SMC 0500 is a special SMC with reduced density. The glass level has been selected to combine good moulding with good strength and stiffness properties. Even without a specific fire retardant the fire retardancy level HB according the UL 94 is achieved. The product is suitable especially for applications calling for low weight and durability. Typical applications are transportation boxes, air lift containers or components for the aircraft industry.

General Information			
Filler / Reinforcement	Glass\Mineral,25% Filler by Weight		
Features	Durable		
	Flame Retardant		
	Good Moldability		
	Good Stiffness		
	Good Strength		
	Halogen Free		
	High Heat Resistance		
	Low Density		
	Low Molecular Weight		
Low Smoke Emission			
Uses	Aircraft Applications		
	Containers		
Appearance	Colors Available		
Forms	SMC - Sheet Molding Compound		
Processing Method	Compression Molding		
Part Marking Code (ISO 11469)	>UP-(MD+GF+GB)??<		
Physical	Nominal Value	Unit	Test Method
Density	1.50	g/cm³	ISO 1183
Molding Shrinkage			
-- 1	0.0	%	DIN 53464
--	0.050	%	ISO 2577
Water Absorption (Saturation, 23°C)	< 0.50	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (Compression Molded)	8000	MPa	ISO 527-2
Tensile Stress (Yield, Compression Molded)	50.0	MPa	ISO 527-2
Flexural Modulus (Compression Molded)	7000	MPa	ISO 178

Flexural Stress (Compression Molded)	140	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (Compression Molded)	50	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+12	ohms	IEC 60093
Volume Resistivity	1.0E+15	ohms · cm	IEC 60093
Comparative Tracking Index	600	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating (3.00 mm)	HB		UL 94
Glow Wire Ignition Temperature	750	°C	IEC 60695-2-13
Oxygen Index	22	%	ISO 4589-2
Additional Information	Nominal Value		Test Method
Glow Bar	Level BH 2 <= 95		IEC 60707-3
Injection	Nominal Value	Unit	
Mold Temperature	135 to 150	°C	
Injection Pressure	5.00 to 7.00	MPa	
NOTE			
1.	Post Molding Shrinkage		

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