

# Menzolit® SMC 1000

Thermoset Polyester

Menzolit Ltd (UK)

## Message:

Menzolit® SMC 1000 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 1000 is a special SMC for hydrolysis resistant applications. The glass level has been selected to combine good mouldability with good strength and stiffness properties. Typical applications are components facing exposure to water or moisture. This may be housings, covers and similar components exposed to a tropical climate or humid plant environment causing extensive immersion in water or exposure to high humidity. Sectional watertank panels are another very typical application.

General Information			
Filler / Reinforcement	Glass\Mineral,25% Filler by Weight		
Features	Flame Retardant		
	Good Moldability		
	Good Stiffness		
	Good Strength		
	Halogen Free		
	High Heat Resistance		
	Hydrolysis Resistant		
	Low Smoke Emission		
Uses	Housings		
	Tanks		
Appearance	Colors Available		
Forms	SMC - Sheet Molding Compound		
Processing Method	Compression Molding		
Part Marking Code (ISO 11469)	>UP-(MD+GF)61<		
Physical	Nominal Value	Unit	Test Method
Density	1.70	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage			
-- <sup>1</sup>	0.0	%	DIN 53464
--	0.080	%	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)	8000	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 <sup>2</sup>	ISO 179
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	> 200	°C	ISO 75-2/A
Continuous Use Temperature	150	°C	Internal Method
Glass Transition Temperature	145	°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	850	°C	IEC 60695-2-13
Oxygen Index	28	%	ISO 4589-2
Additional Information	Nominal Value		Test Method
Glow Bar	Level BH 2 <= 30		IEC 60707-3
Injection	Nominal Value	Unit	
Mold Temperature	135 to 150	°C	
Injection Pressure	8.00 to 10.0	MPa	
NOTE			
1.	Post Molding Shrinkage		

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#### Recommended distributors for this material

### Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

