

# Menzolit® SMC 0190

## Thermoset Polyester

### Menzolit Ltd (UK)



Prospector

#### Product Description

Menzolit® SMC 0190 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 0190 is a general purpose SMC for applications in the field of electrical industry. Typical applications are housings, covers, wire distribution boxes and metering cabinets. The material meets the demands of DIN 16913 and is classified as type 834 (834.5) regarding mechanical properties. The flammability meets the demands of standard UL 94 category V0. For grey tones, a certificate (yellow-card) is available on request. The glass content is on a level that combines good mouldability with good mechanical properties regarding strength and stiffness.

#### General

Material Status	• Commercial: Active
Availability	• Europe
Filler / Reinforcement	• Glass\Mineral, 28% Filler by Weight
Features	<ul style="list-style-type: none"> <li>• Flame Retardant</li> <li>• General Purpose</li> <li>• Good Moldability</li> </ul> <ul style="list-style-type: none"> <li>• Good Stiffness</li> <li>• Good Strength</li> <li>• Halogen Free</li> </ul> <ul style="list-style-type: none"> <li>• High Heat Resistance</li> <li>• Low Smoke Emission</li> </ul>
Uses	<ul style="list-style-type: none"> <li>• Electrical/Electronic Applications</li> <li>• General Purpose</li> <li>• Housings</li> </ul>
Agency Ratings	• DIN 16913 type 834.5
Appearance	• Colors Available
Forms	• SMC - Sheet Molding Compound
Processing Method	• Compression Molding
Part Marking Code (ISO 11469)	• >UP-(MD+GF)68<

Physical	Nominal Value Unit	Test Method
Density	1.70 g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage		
-- <sup>2</sup>	0.0 %	DIN 53464
--	0.15 %	ISO 2577
Water Absorption (Saturation, 23°C)	< 0.50 %	ISO 62

Mechanical	Nominal Value Unit	Test Method
Tensile Modulus (Compression Molded)	11000 MPa	ISO 527-2
Tensile Stress (Yield, Compression Molded)	66.0 MPa	ISO 527-2
Flexural Modulus (Compression Molded)	10000 MPa	ISO 178
Flexural Strength (Compression Molded)	158 MPa	ISO 178

Impact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength		ISO 179
Compression Molded	71 kJ/m <sup>2</sup>	

Thermal	Nominal Value Unit	Test Method
Heat Deflection Temperature		ISO 75-2/A
1.8 MPa, Unannealed	> 200 °C	
Max. Continuous Use Temperature	165 °C	Internal Method
Glass Transition Temperature (DSC)	170 °C	DSC
CLTE - Flow	0.000012 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 ohm·cm	IEC 60093
Comparative Tracking Index	600 V	IEC 60112

Flammability	Nominal Value Unit	Test Method
Flame Rating - UL (3.00 mm)	V-0	UL 94
Glow Wire Ignition Temperature	960 °C	IEC 60695-2-13
Oxygen Index	32 %	ISO 4589-2

Additional Information	Nominal Value Unit	Test Method
Glow Bar	Level BH 2 <= 10	IEC 60707-3

Injection	Nominal Value	Unit
Mold Temperature	135 to 150	°C
Injection Pressure	8.00 to 10.0	MPa

**Notes**

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> Post Molding Shrinkage

**Revision History**

Document Created: Monday, August 30, 2010  
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