

Menzolit® SMC 0400

Thermoset Polyester

Menzolit Ltd (UK)

Message:

Menzolit® SMC 0400 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 a must to work with chrome plated tools. The product contains no halogens or heavy metals.

Menzolit® SMC 0400 is a Class-A SMC for exterior body applications on cars, LCV's and trucks. These compounds mould to parts with good up to excellent surface quality for medium bake in-line and off-line painted (100 - 140°C) body panels. Surface defects like waviness, fibre patterns and orange peel do not occur with this products. To achieve the highest surface quality, we recommend that tool surfaces are mirror polished. To ease demoulding we highly recommend chrome-plating of tool surfaces. Menzolit® SMC 0400 allows. The product shows very good adhesion to paint or In Mould Coating (IMC). Because of its zero shrink properties warpage is eliminated and parts reproducing the dimensions of the cold mould can be produced.

| General Information | | | |
|--|--|-------------------|-------------|
| Filler / Reinforcement | Glass\Mineral,30% Filler by Weight | | |
| Features | Flame Retardant | | |
| | Good Adhesion | | |
| | Good Surface Finish | | |
| | Halogen Free | | |
| | High Heat Resistance | | |
| | Low Shrinkage | | |
| | Low Smoke Emission | | |
| Uses | Low Warpage | | |
| | | | |
| Uses | Automotive Applications Automotive Exterior Parts | | |
| Appearance | Natural Color | | |
| Forms | SMC - Sheet Molding Compound | | |
| Processing Method | Compression Molding | | |
| Part Marking Code (ISO 11469) | >UP-(MD+GF)75< | | |
| Physical | Nominal Value | Unit | Test Method |
| Density | 1.90 | g/cm ³ | 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) | 11000 | MPa | ISO 527-2 |
| Tensile Stress (Yield, Compression Molded) | 90.0 | MPa | ISO 527-2 |
| Tensile Strain (Break, Compression Molded) | 1.5 | % | ISO 527-2 |
| Flexural Modulus (Compression Molded) | 10000 | MPa | ISO 178 |

| | | | |
|--|------------------------|-------------------|-----------------|
| Flexural Stress (Compression Molded) | 180 | MPa | ISO 178 |
| Compressive Stress | 100 | MPa | ISO 14126 |
| Poisson's Ratio | 0.30 | | Internal Method |
| Matrix Craze Strain | 0.40 | % | Internal Method |
| Impact | Nominal Value | Unit | Test Method |
| Charpy Notched Impact Strength (Compression Molded) | 80 | 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 | ISO 14126 |
| Glass Transition Temperature | 200 | °C | DSC |
| CLTE - Flow | 1.0E-5 | cm/cm/°C | ISO 11359-2 |
| Flammability | Nominal Value | | Test Method |
| Flame Rating (3.00 mm) | HB | | UL 94 |
| Injection | Nominal Value | Unit | |
| Mold Temperature | 140 to 160 | °C | |
| Injection Pressure | 8.00 to 10.0 | MPa | |
| NOTE | | | |
| 1. | Post Molding Shrinkage | | |

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