

Menzolit® SMC 1800

Thermoset Polyester

Menzolit Ltd (UK)

Message:

Menzolit® SMC 1800 is a sheet moulding compound based on an unic resin formulation. 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 does not contain halogens nor any heavy metals.

Menzolit® SMC 1800 is for structural applications requiring extreme high mechanical properties and low weight. These compounds mould to parts focussing on mechanical strength for replacement of metals in order to reduce the weight by keeping other performance characteristics like stiffness , low thermal expansion and low shrinkage . Its resilient matrix properties make it highly suitable for applications challenging in fatigue and dynamic loads.

| General Information | | | |
|---|------------------------------------|-------------------|-------------|
| Filler / Reinforcement | Glass\Mineral,50% Filler by Weight | | |
| Features | Halogen Free | | |
| | High Strength | | |
| | Low Shrinkage | | |
| | Low Smoke Emission | | |
| Processing Method | Compression Molding | | |
| Physical | Nominal Value | Unit | Test Method |
| Molding Shrinkage | | | |
| -- | 0.0 | % | DIN 53464 |
| -- | 0.11 | % | ISO 2577 |
| Water Absorption (23°C, 24 hr) | < 0.50 | % | ISO 62 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Modulus | 12000 | MPa | ISO 527-2 |
| Tensile Stress (Break) | 160 | MPa | ISO 527-2 |
| Flexural Modulus | 15000 | MPa | ISO 178 |
| Flexural Stress | 380 | MPa | ISO 178 |
| Poisson's Ratio | 0.30 | | |
| Fiber Content | 50 | % | ISO 1172 |
| Material Designation | >UP-(GF+KD)60< | | EN 14598-1 |
| Impact | Nominal Value | Unit | Test Method |
| Charpy Unnotched Impact Strength | 170 | 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 | 140 | °C | |
| CLTE - Flow | 1.2E-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 | 145 to 155 | °C |
| Injection Pressure | 8.00 to 12.0 | MPa |

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