# BMC 5592

Thermoset Polyester

Bulk Molding Compounds, Inc.

## Message:

BMC 5592 molding compound is an arc, track and weather resistant grade polyester compound suitable for compression, transfer and stuffer injection molding. It has excellent impact strength, flame resistance and electrical characteristics. Typical applications include third rail and other rapid transit insulators. BMC 5592 molding compound is produced in extruded form in a range of industrial colors. It is available in logs up to 12 inches in length or as precut slugs, of specific weight, in diameters 1" to 2 ½" . Within this range, smaller diameters are supplied as multiple extrusions and weight tolerances are plus or minus 5 %, up to a maximum of plus or minus 15 grams.

| General Information | |
|---|---|
| Features | Impact resistance, high<br>Good electrical performance<br>Good weather resistance<br>Flame retardancy |
| Uses | Electronic insulation |
| Appearance | Available colors |
| Forms | BMC-Block Molding Compound |
| Processing Method | Compression molding<br>Injection molding |

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Specific Gravity | 1.87 | g/cm³ | ASTM D792 |
| Molding Shrinkage - Flow | 0.20 - 0.30 | % | ASTM D955 |
| Water Absorption (23°C, 24 hr) | 0.10 | % | ASTM D570 |
| **Hardness** | **Nominal Value** | **Unit** | **Test Method** |
| Barcol Hardness | 40 | | ASTM D2583 |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Strength (Yield) | 79.3 | MPa | ASTM D638 |
| Flexural Strength | 172 | MPa | ASTM D790 |
| Compressive Strength | 159 | MPa | ASTM D695 |
| **Impact** | **Nominal Value** | **Unit** | **Test Method** |
| Notched Izod Impact | 750 | J/m | ASTM D256 |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Deflection Temperature Under Load (1.8 MPa, Unannealed) | 260 | °C | ASTM D648 |
| **Electrical** | **Nominal Value** | **Unit** | **Test Method** |
| Dielectric Strength [1] | 15 | kV/mm | ASTM D149 |
| Arc Resistance | 195 | sec | ASTM D495 |
| Comparative Tracking Index (CTI) | 600 | V | UL 746 |
| **Flammability** | **Nominal Value** | **Unit** | **Test Method** |

| | | |
|---|---|---|
| Flame Rating | | UL 94 |
| 1.02 mm | V-0 | UL 94 |
| 1.59 mm | V-0 | UL 94 |
| 3.18 mm | V-0 | UL 94 |
| 6.35 mm | V-0 | UL 94 |

| Additional Information |
|---|
| Inclined plane track resistance @ 2500 volts: 1000Flame resistance, ASTM D229, Ignition time: 200 secFlame resistance, ASTM D229, Burn time: 50 sec |

| Injection | Nominal Value | Unit |
|---|---|---|
| Mold Temperature | 138 - 166 | °C |

| NOTE | |
|---|---|
| 1. | Method A (short time) |



## Recommended distributors for this material

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