

Technical Data Sheet

# Bmc 600

Thermoset Polyester  
LyondellBasell Industries  
Engineering Plastics

## Product Description

BMC 600 molding compound is a mineral filled, glass-fiber-reinforced polyester compound suitable for compression, transfer and stuffer injection molding. It is a general purpose material with medium impact strength and good overall electrical properties. Typical applications include slip rings, commutators and brush holders. BMC 600 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 from 1" to 2 1/2". 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

|                           |  |                              |                            |
|---------------------------|--|------------------------------|----------------------------|
| Filler / Reinforcement    | • Glass\Mineral                                |                              |                            |
| Features                  | • General Purpose                              | • Good Electrical Properties | • Medium Impact Resistance |
| Uses                      | • Communication Applications • General Purpose |                              |                            |
| Automotive Specifications | • DELCO PROD DPM 4200 • DELPHI M-2259          |                              |                            |
| Forms                     | • BMC - Bulk Molding Compound                  |                              |                            |
| Processing Method         | • Compression Molding • Injection Molding      |                              |                            |

| Physical                              | Nominal Value (English) | Nominal Value (SI)     | Test Method |
|---------------------------------------|-------------------------|------------------------|-------------|
| Density / Specific Gravity            | 2.02                    | 2.01 g/cm <sup>3</sup> | ASTM D792   |
| Water Absorption (24 Hr, 73°F (23°C)) | 0.13 %                  | 0.13 %                 | ASTM D570   |

| Mechanical                                   | Nominal Value (English) | Nominal Value (SI) | Test Method |
|--|-------------------------|--------------------|-------------|
| Tensile Strength (Yield, Compression Molded) | 5000 to 7000 psi        | 34.5 to 48.3 MPa   | ASTM D638   |
| Flexural Strength (Compression Molded)       | 16000 to 20000 psi      | 110 to 138 MPa     | ASTM D790   |
| Compressive Strength                         | 22000 to 26000 psi      | 152 to 179 MPa     | ASTM D695   |

| Impact                                   | Nominal Value (English) | Nominal Value (SI) | Test Method |
|--|-------------------------|--------------------|-------------|
| Notched Izod Impact (Compression Molded) | 2.0 to 4.0 ft·lb/in     | 110 to 210 J/m     | ASTM D256   |

| Hardness        | Nominal Value (English) | Nominal Value (SI) | Test Method |
|-----------------|-------------------------|--------------------|-------------|
| Barcol Hardness | 40 to 50                | 40 to 50           | ASTM D2583  |

| Thermal  | Nominal Value (English) | Nominal Value (SI) | Test Method |
|--|-------------------------|--------------------|-------------|
| Deflection Temperature Under Load<br>264 Psi (1.8 Mpa), Unannealed, Compression Molded | > 500 °F                | > 260 °C           | ASTM D648   |

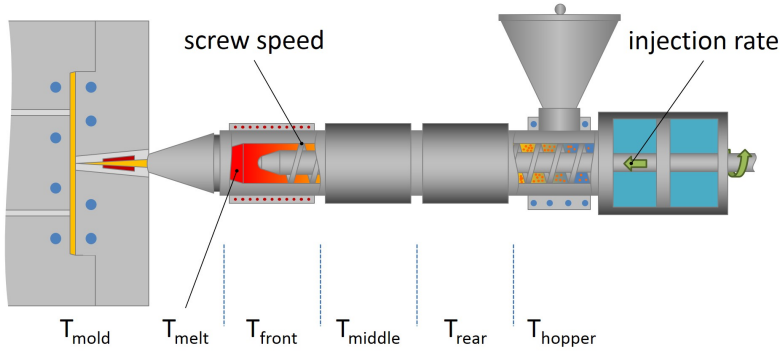
| Electrical                                  | Nominal Value (English) | Nominal Value (SI) | Test Method |
|---|-------------------------|--------------------|-------------|
| Dielectric Strength (Method A (short-time)) | 330 V/mil               | 13 kV/mm           | ASTM D149   |
| Dielectric Constant (60 Hz)                 | 6.10                    | 6.10               | ASTM D150   |
| Dissipation Factor (60 Hz)                  | 7.0E-3                  | 7.0E-3             | ASTM D150   |
| Arc Resistance                              | > 180 sec               | > 180 sec          | ASTM D495   |
| Comparative Tracking Index (CTI)            | > 600 V                 | > 600 V            | UL 746A     |

| Flammability     | Nominal Value (English) | Nominal Value (SI) | Test Method |
|------------------|-------------------------|--------------------|-------------|
| Flame Rating     |                         |                    | UL 94       |
| 0.06 In (1.6 Mm) | HB                      | HB                 |             |
| 0.13 In (3.2 Mm) | HB                      | HB                 |             |
| 0.25 In (6.4 Mm) | HB                      | HB                 |             |

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| Injection        | Nominal Value (English) | Nominal Value (SI) |
|------------------|-------------------------|--------------------|
| Mold Temperature | 280 to 330 °F           | 138 to 166 °C      |

**Notes**

These are typical property values not to be construed as specification limits.