

**Technical Data Sheet****Bmc 675**

Thermoset Polyester  
LyondellBasell Industries  
Engineering Plastics

**Product Description**

BMC 675 molding compound is a mineral filled, glass reinforced polyester molding compound suitable for compression, transfer or stuffer injection molding. It is characterized by good moldability, oil and solvent resistance and creep resistance at elevated temperatures. Typical applications include replacements for die castings and sheet molding compounds, valve covers, intake manifolds, oil pans and structural components.

BMC 675 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.

**General**

|                           |                                                       |
|---------------------------|-------------------------------------------------------|
| Material Status           | • Commercial: Active                                  |
| Availability              | • North America                                       |
| Automotive Specifications | • CHRYSLER MS-DA-300 CPN4571 Color: 15419 Black       |
| Forms                     | • Pellets                                             |
| Processing Method         | • Compression Molding • Extrusion • Injection Molding |

| Physical                              | Nominal Value (English) | Nominal Value (SI)     | Test Method |
|---------------------------------------|-------------------------|------------------------|-------------|
| Density / Specific Gravity            | 1.85                    | 1.85 g/cm <sup>3</sup> | ASTM D792   |
| Water Absorption (24 hr, 73°F (23°C)) | 0.25 %                  | 0.25 %                 | ASTM D570   |
| Mechanical                            | Nominal Value (English) | Nominal Value (SI)     | Test Method |
| Tensile Modulus                       | 2.15E+6 psi             | 14800 MPa              | ASTM D638   |
| Tensile Strength                      | 4500 psi                | 31.0 MPa               | ASTM D638   |
| Flexural Modulus                      | 1.90E+6 psi             | 13100 MPa              | ASTM D790   |
| Flexural Strength                     | 12500 psi               | 86.2 MPa               | ASTM D790   |
| Compressive Strength                  | 24000 psi               | 165 MPa                | ASTM D695   |
| Impact                                | Nominal Value (English) | Nominal Value (SI)     | Test Method |
| Instrumented Dart Impact              |                         |                        | ASTM D3763  |
| Energy to Max Load                    | 27.0 in-lb              | 3.05 J                 |             |
| 0.125 in (3.18 mm), Total Energy      | 44.4 in-lb              | 5.02 J                 |             |
| Hardness                              | Nominal Value (English) | Nominal Value (SI)     | Test Method |
| Barcol Hardness                       | 55                      | 55                     | ASTM D2583  |

**Additional Information**

Density Specific Gravity, ASTM D792: 1.80 to 1.90 sp gr 23/23°C  
Flexural Strength, ASTM D790: 11000 to 14000 psi  
Flexural Modulus, ASTM D790: 1800000 to 2000000 psi  
Compressive Strength, ASTM D695: 23000 to 25000 psi  
Tensile Strength, ASTM D638: 4000 to 5000 psi  
Tensile Modulus, ASTM D638: 2000000 to 2300000 psi  
Water Absorption @ 24 hrs, ASTM D570, 23°C: 0.23 to 0.27 %  
Barcol Hardness, ASTM D2583: 50 to 60  
Instrumented Dart Impact, ASTM D3763, 0.125 in, Total Energy: 3 to 4.4 ft-lb  
Instrumented Dart Impact, ASTM D3763, Energy to Max Load: 1.8 to 2.7 ft-lb  
Instrumented Dart Impact, ASTM D3763, Maximum Load: 170 to 200 lbs

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| Injection              | Nominal Value (English) | Nominal Value (SI) |
|------------------------|-------------------------|--------------------|
| Processing (Melt) Temp | 280 to 330 °F           | 138 to 166 °C      |

#### Notes

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

#### Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

#### Product Storage and Handling

- Product should be stored in dry conditions at temperatures below 50°C and protected from UV-light
- Improper storage may bring damage to the packaging and can negatively affects on the quality of this product
- Keep material completely dry for good processing

#### Company Information

For further information regarding the LyondellBasell company, please visit <http://www.lyb.com/>.

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