

Technical Data Sheet**Bmc 685**

Thermoset Polyester
LyondellBasell Industries
Engineering Plastics

Product Description

BMC 685 molding compound is a mineral filled, glass fiber reinforced polyester compound suitable for compression, transfer and 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 circuit breakers.

BMC 685 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 in to 2.5 in. 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

Material Status	• Commercial: Active		
Availability	• North America		
Filler / Reinforcement	• Glass Fiber/Mineral		
Features	• Creep Resistant • Good Moldability	• Oil Resistant • Solvent Resistant	
Uses	• Automotive Applications	• Automotive Under the Hood	
Appearance	• Colors Available		
Forms	• BMC - Bulk Molding Compound		
Processing Method	• Compression Molding	• Injection Molding	• Resin Transfer Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.75	1.75 g/cm ³	ASTM D792
Water Absorption (24 hr, 73°F (23°C))	0.11 %	0.11 %	ASTM D570
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength	10500 psi	72.4 MPa	ASTM D638
Flexural Strength	28500 psi	197 MPa	ASTM D790
Compressive Strength	28500 psi	197 MPa	ASTM D695
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact	17 ft-lb/in	880 J/m	ASTM D256
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Barcol Hardness	60	60	ASTM D2583
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load 264 psi (1.8 MPa), Unannealed	500 °F	260 °C	ASTM D648
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Dielectric Strength (Method A (Short-Time))	400 V/mil	16 kV/mm	ASTM D149
Arc Resistance	190 sec	190 sec	ASTM D495
Comparative Tracking Index (CTI)	500 V	500 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)	V-0	V-0	
0.25 in (6.4 mm)	V-0	V-0	

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

Technical Data Sheet



Bmc 685

Thermoset Polyester
LyondellBasell Industries
Engineering Plastics

- 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/>.

© LyondellBasell Industries Holdings, B.V. 2024

Disclaimer

Information in this document is accurate to the best of our knowledge at the date of publication. The document is designed to provide users general information for safe handling, use, processing, storage, transportation, disposal and release and does not constitute any warranty or quality specification, either express or implied, including any warranty of merchantability or fitness for any particular purpose. Users shall determine whether the product is suitable for their use and can be used safely and legally.

In addition to any prohibitions of use specifically noted in this document, LyondellBasell may further prohibit or restrict the sale of its products into certain applications. For further information, please contact a LyondellBasell representative.

Trademarks

The Trademark referenced within the product name is owned or used by the LyondellBasell family of companies.