

Technical Data Sheet

**Bmc 680**

Thermoset Polyester
LyondellBasell Industries
Engineering Plastics

Product Description

BMC 680 molding compound is a mineral filled, glass-fiber-reinforced polyester compound suitable for compression and stuffer injection molding. It is characterized by good moldability, very high impact strength, 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 680 molding compound is produced in a range of industrial colors and is supplied in bulk form.

General

Material Status	• Commercial: Active		
Availability	• North America		
Filler / Reinforcement	• Glass Fiber\Mineral		
Features	• Creep Resistant • Good Moldability	• Oil Resistant • Solvent Resistant	• Ultra High Impact Resistance
Uses	• Automotive Applications	• Electrical/Electronic Applications	
Appearance	• Colors Available		
Forms	• BMC - Bulk Molding Compound		
Processing Method	• Compression Molding	• Injection Molding	

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.71	1.71 g/cm ³	ASTM D792
Water Absorption (24 hr, 73°F (23°C))	0.15 %	0.15 %	ASTM D570
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength (Yield, Compression Molded)	15500 psi	107 MPa	ASTM D638
Flexural Strength (Compression Molded)	32500 psi	224 MPa	ASTM D790
Compressive Strength	21500 psi	148 MPa	ASTM D695
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (Compression Molded)	24 ft·lb/in	1300 J/m	ASTM D256
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Barcol Hardness	55	55	ASTM D2583
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load 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))	390 V/mil	15 kV/mm	ASTM D149
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)	V-0	V-0	

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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.

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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