

Technical Data Sheet

**Bmc 501E**

Thermoset Polyester
LyondellBasell Industries
Engineering Plastics

Product Description

BMC 501E molding compound is a mineral filled, glass-fiber-reinforced polyester compound suitable for compression and transfer molding. It is a product with good overall electrical properties, flame resistance, and low water absorption. Distinguished from other materials by its very soft flow, it is an excellent compound for encapsulating delicate components. Typical applications include coil and solenoid Encapsulation. BMC 501E molding compound is produced in extruded form in a range on industrial colors. Because of the soft consistency of this product, it is only available in logs from 3 inches to 12 inches in length and from 1" to 2 ½" in diameter. Within this range, smaller diameters are supplied as multiple extrusions.

General

Material Status	• Commercial: Active
Availability	• North America
Filler / Reinforcement	• Glass Fiber/Mineral
Features	• Flame Retardant • Good Electrical Properties • Low to No Water Absorption
Uses	• Coating Applications
Appearance	• Colors Available
Forms	• BMC - Bulk Molding Compound
Processing Method	• Compression Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.77	1.77 g/cm ³	ASTM D792
Water Absorption (24 hr, 73°F (23°C))	0.10 %	0.10 %	ASTM D570
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength (Yield, Compression Molded)	5000 psi	34.5 MPa	ASTM D638
Flexural Strength (Compression Molded)	11000 psi	75.8 MPa	ASTM D790
Compressive Strength	13000 psi	89.6 MPa	ASTM D695
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (Compression Molded)	2.3 ft-lb/in	120 J/m	ASTM D256
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Barcol Hardness	5.0	5.0	ASTM D2583
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load 264 psi (1.8 MPa), Unannealed, Compression Molded	400 °F	204 °C	ASTM D648
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Dielectric Strength (Method A (Short-Time))	300 V/mil	12 kV/mm	ASTM D149
Dielectric Constant (60 Hz)	4.90	4.90	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)	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)	V-0	V-0	
0.13 in (3.2 mm)	V-0	V-0	
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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