

Technical Data Sheet

**Bmc 501**

Thermoset Polyester
LyondellBasell Industries
Engineering Plastics

Product Description

BMC 501 molding compound is a mineral filled, glass-fiber-reinforced compound suitable for compression, transfer and stuffer injection molding. It provides the user with good electrical properties and extremely low water absorption. This product has a low mold shrinkage and resists the formation of internal voids normally associated with glass filled compounds. Typical applications include slip rings, brush holders and connector bases. BMC 501 molding compound is produced in extruded form in a range on 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

Material Status	• Commercial: Active		
Availability	• North America		
Filler / Reinforcement	• Glass Fiber/Mineral		
Features	• Good Electrical Properties	• Low Shrinkage	• Low to No Water Absorption
Uses	• Connectors		
Automotive Specifications	• CHRYSLER MS-DA-113		
Forms	• BMC - Bulk Molding Compound		
Processing Method	• Compression Molding	• Injection Molding	

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.93	1.93 g/cm ³	ASTM D792
Water Absorption (24 hr, 73°F (23°C))	0.060 %	0.060 %	ASTM D570
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength (Yield)	5000 to 7000 psi	34.5 to 48.3 MPa	ASTM D638
Flexural Strength	12000 to 16000 psi	82.7 to 110 MPa	ASTM D790
Compressive Strength	20000 to 24000 psi	138 to 165 MPa	ASTM D695
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact	1.5 to 2.5 ft·lb/in	80 to 130 J/m	ASTM D256
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Barcol Hardness	25 to 35	25 to 35	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))	330 V/mil	13 kV/mm	ASTM D149
Dielectric Constant (60 Hz)	5.20	5.20	ASTM D150
Dissipation Factor (60 Hz)	0.020	0.020	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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