

Technical Data Sheet

**Bmc 5209**

Thermoset Polyester
LyondellBasell Industries
Engineering Plastics

Product Description

BMC 5209 molding compound is a mineral filled, glass-fiber-reinforced polyester compound suitable for compression, transfer and stuffer injection molding. It is a high impact material produced in extruded form for ease of handling. Other characteristics are good over all electrical properties and flame resistance. Typical applications include circuit breaker housings, standoff insulators, bus supports and tool housings. BMC 5209 molding compound is produced in extruded form in a range on industrial colors. It is available in logs up to 12 inches in length and from 1" to 2 ½" in diameter. 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	• Flame Retardant	• Good Electrical Properties	• High Impact Resistance
Uses	• Electrical Housing	• 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	1.90	1.90 g/cm ³	ASTM D792
Water Absorption (24 hr, 73°F (23°C))	0.050 %	0.050 %	ASTM D570
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength (Yield, Compression Molded)	7000 psi	48.3 MPa	ASTM D638
Flexural Strength (Compression Molded)	19000 psi	131 MPa	ASTM D790
Compressive Strength	26000 psi	179 MPa	ASTM D695
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (Compression Molded)	7.5 ft·lb/in	400 J/m	ASTM D256
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Barcol Hardness	40	40	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))	370 V/mil	14 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)	V-0	V-0	
0.13 in (3.2 mm)	• V-0	• V-0	
	• 5V	• 5V	
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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