

Technical Data Sheet**Bmc 605**

Thermoset Polyester
LyondellBasell Industries
Engineering Plastics

Product Description

BMC 605 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, medium impact strength, excellent overall electrical properties and flame resistance. Typical applications include circuit breakers, transformer bobbins and motor end bells. BMC 605 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" to 2 ½". 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 Moldability • Good Electrical Properties • Medium Impact Resistance
Uses	• Electrical/Electronic Applications
Automotive Specifications	• DELCO PROD DPM 4218
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	1.95	1.95 g/cm ³	ASTM D792
Water Absorption (24 hr, 73°F (23°C))	0.14 %	0.14 %	ASTM D570
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength (Yield, Compression Molded)	6000 to 8000 psi	41.4 to 55.2 MPa	ASTM D638
Flexural Strength (Compression Molded)	16000 to 20000 psi	110 to 138 MPa	ASTM D790
Compressive Strength	24000 to 28000 psi	165 to 193 MPa	ASTM D695
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (Compression Molded)	2.0 to 6.0 ft·lb/in	110 to 320 J/m	ASTM D256
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Barcol Hardness	40 to 50	40 to 50	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))	350 V/mil	14 kV/mm	ASTM D149
Arc Resistance	190 sec	190 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	
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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