Technical Data Sheet

LyondellBasell

Bmc 610

Thermoset Polyester
LyondellBasell Industries
Engineering Plastics

Product Description

BMC 610 molding compound is a mineral filled, glass-fiber-reinforced polyester compound suitable for compression, transfer and stuffer injection molding. It is set a part form other medium impact electrical grade materials by its very high arc resistance and outstanding flame resistance in thin sections. Typical applications include transformer bobbins, terminal boards, arc chutes and contactors. BMC 610 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 1" to 2 ½" . Within this range, smaller diameters are supplied as multiple extrusion 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	
Additive	• UV Stabilizer	
Features	• Arc Resistant • Flame Retardant	• Good Electrical Properties • Medium Impact Resistance
Uses	• 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	1.89 to 1.95	1.89 to 1.95 g/cm³	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)	6000 to 8000 psi	41.4 to 55.2 MPa	ASTM D638
Flexural Strength	14000 to 18000 psi	96.5 to 124 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	2.0 to 4.0 ft·lb/in	110 to 210 J/m	ASTM D256
Hardness	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Barcol Hardness	28 to 43	28 to 43	ASTM D2583
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed	> 500 °F	> 260 °C	
Electrical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Dielectric Strength (Method A (Short-Time))	360 V/mil	14 kV/mm	ASTM D149
Dielectric Constant (60 Hz)	5.50	5.50	ASTM D150
Dissipation Factor (60 Hz)	0.015	0.015	ASTM D150
Arc Resistance	> 210 sec	> 210 sec	ASTM D495
Comparative Tracking Index (CTI)	> 600 V	> 600 V	UL 746A
Inclined-Plane Tracking (2.5 kV)	> 900 min	> 900 min	ASTM D2303
Flammability	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Flame Rating			UL 94
0.031 in (0.79 mm)	V-0	V-0	
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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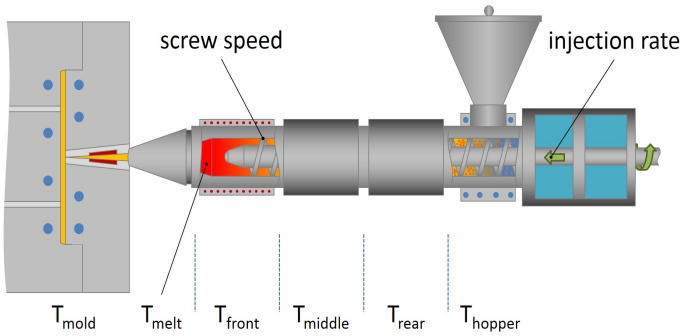

Injection	Nominal Value (English)	Nominal Value (SI)
Mold Temperature	280 to 330 °F	138 to 166 °C

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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