

Technical Data Sheet**Bmc 5592**

Thermoset Polyester
LyondellBasell Industries
Engineering Plastics

Product Description

BMC 5592 molding compound is an arc, track and weather resistant grade polyester compound suitable for compression, transfer and stuffer injection molding. It has excellent impact strength, flame resistance and electrical characteristics. Typical applications include third rail and other rapid transit insulators. BMC 5592 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
Features	• Flame Retardant • Good Weather Resistance • Good Electrical Properties • High Impact Resistance
Uses	• Electronic Insulation
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	1.87	1.87 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)	11500 psi	79.3 MPa	ASTM D638
Flexural Strength	25000 psi	172 MPa	ASTM D790
Compressive Strength	23000 psi	159 MPa	ASTM D695
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact	14 ft·lb/in	750 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	500 °F	260 °C	ASTM D648
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Dielectric Strength (Method A (Short-Time))	390 V/mil	15 kV/mm	ASTM D149
Arc Resistance	195 sec	195 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
0.04 in (1.0 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	

Additional Information

Inclined plane track resistance @ 2500 volts: 1000
Flame resistance, ASTM D229, Ignition time: 200 sec
Flame resistance, ASTM D229, Burn time: 50 sec

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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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