Technical Data Sheet

Bmc 501E

Thermoset Polyester
LyondellBasell Industries
Engineering Plastics

Product Description

BMC 501E molding compound is a mineral filled, glass-fiber-reinforced polyester compound suitable for compression and transfer molding. It is a product with good overall electrical properties, flame resistance, and low water absorption. Distinguished from other materials by its very soft flow, it is an excellent compound for encapsulating delicate components. Typical applications include coil and solenoid Encapsulation. BMC 501E molding compound is produced in extruded form in a range on industrial colors. Because of the soft consistency of this product, it is only available in logs from 3 inches to 12 inches in length and from 1" to 2 ½" in diameter. Within this range, smaller diameters are supplied as multiple extrusions.

General

Filler / Reinforcement	• Glass\Mineral		
Features	• Flame Retardant	• Good Electrical Properties	• Low to No Water Absorption
Uses	• Coating Applications		
Appearance	• Colors Available		
Forms	• BMC - Bulk Molding Compound		
Processing Method	• Compression Molding		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.77	1.77 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, Compression Molded)	5000 psi	34.5 MPa	ASTM D638
Flexural Strength (Compression Molded)	11000 psi	75.8 MPa	ASTM D790
Compressive Strength	13000 psi	89.6 MPa	ASTM D695
Impact	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Notched Izod Impact (Compression Molded)	2.3 ft·lb/in	120 J/m	ASTM D256
Hardness	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Barcol Hardness	5.0	5.0	ASTM D2583
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Deflection Temperature Under Load			ASTM D648
264 Psi (1.8 Mpa), Unannealed, Compression Molded	400 °F	204 °C	
Electrical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Dielectric Strength (Method A (short-time))	300 V/mil	12 kV/mm	ASTM D149
Dielectric Constant (60 Hz)	4.90	4.90	ASTM D150
Dissipation Factor (60 Hz)	7.0E-3	7.0E-3	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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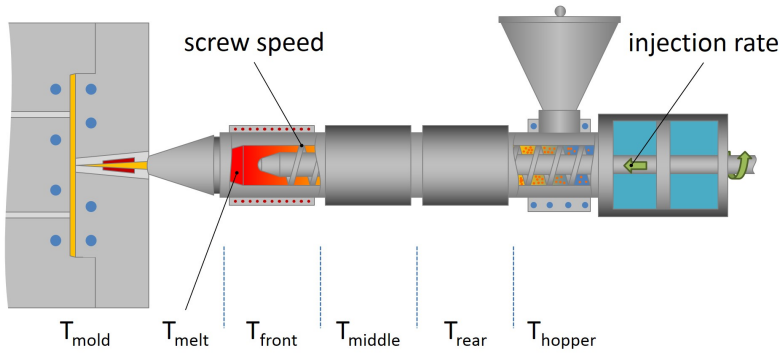

Injection	Nominal Value (English)	Nominal Value (SI)
Mold Temperature	280 to 330 °F	138 to 166 °C

Notes

These are typical property values not to be construed as specification limits.