Technical Data Sheet

Bmc 501

Thermoset Polyester
LyondellBasell Industries
Engineering Plastics

Product Description

BMC 501 molding compound is a mineral filled, glass-fiber-reinforced compound suitable for compression, transfer and stuffer injection molding. It provides the user with good electrical properties and extremely low water absorption. This product has a low mold shrinkage and resists the formation of internal voids normally associated with glass filled compounds. Typical applications include slip rings, brush holders and connector bases. BMC 501 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 from 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

Filler / Reinforcement	• Glass\Mineral		
Features	• Good Electrical Properties	• Low Shrinkage	• Low to No Water Absorption
Uses	• Connectors		
Automotive Specifications	• CHRYSLER MS-DA-113		
Forms	• BMC - Bulk Molding Compound		
Processing Method	• Compression Molding	• Injection Molding	

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.93	1.93 g/cm³	ASTM D792
Water Absorption (24 Hr, 73°f (23°c))	0.060 %	0.060 %	ASTM D570
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Strength (Yield)	5000 to 7000 psi	34.5 to 48.3 MPa	ASTM D638
Flexural Strength	12000 to 16000 psi	82.7 to 110 MPa	ASTM D790
Compressive Strength	20000 to 24000 psi	138 to 165 MPa	ASTM D695
Impact	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Notched Izod Impact	1.5 to 2.5 ft·lb/in	80 to 130 J/m	ASTM D256
Hardness	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Barcol Hardness	25 to 35	25 to 35	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))	330 V/mil	13 kV/mm	ASTM D149
Dielectric Constant (60 Hz)	5.20	5.20	ASTM D150
Dissipation Factor (60 Hz)	0.020	0.020	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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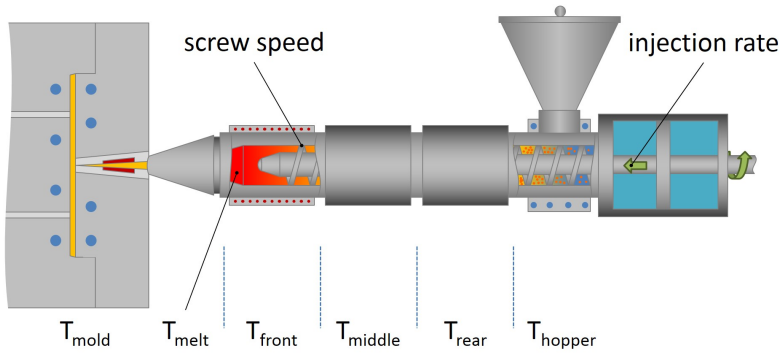

Injection	Nominal Value (English)	Nominal Value (SI)
Mold Temperature	280 to 330 °F	138 to 166 °C

Notes

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