

Technical Data Sheet

Bmc 685

Thermoset Polyester
LyondellBasell Industries
Engineering Plastics

Product Description

BMC 685 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, oil and solvent resistance and creep resistance at elevated temperatures. Typical applications include replacements for die castings and sheet molding compounds, valve covers, intake manifolds, oil pans and circuit breakers.

BMC 685 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 in to 2.5 in. 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	• Creep Resistant	• Oil Resistant	
	• Good Moldability	• Solvent Resistant	
Uses	• Automotive Applications	• Automotive Under the Hood	
Appearance	• Colors Available		
Forms	• BMC - Bulk Molding Compound		
Processing Method	• Compression Molding	• Injection Molding	• Resin Transfer Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.75	1.75 g/cm ³	ASTM D792
Water Absorption (24 Hr, 73°F (23°C))	0.11 %	0.11 %	ASTM D570

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength	10500 psi	72.4 MPa	ASTM D638
Flexural Strength	28500 psi	197 MPa	ASTM D790
Compressive Strength	28500 psi	197 MPa	ASTM D695

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact	17 ft·lb/in	880 J/m	ASTM D256

Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Barcol Hardness	60	60	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))	400 V/mil	16 kV/mm	ASTM D149
Arc Resistance	190 sec	190 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)	HB	HB	
0.13 In (3.2 Mm)	V-0	V-0	
0.25 In (6.4 Mm)	V-0	V-0	

Notes

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