# BMC 610

### Thermoset Polyester

Bulk Molding Compounds, Inc.

#### Message:

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  $\frac{1}{2}$ ". 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 Information						
Filler / Reinforcement	Glass\Mineral	Glass\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	Unit	Test Method			
Specific Gravity	1.89 to 1.95	g/cm <sup>3</sup>	ASTM D792			
Molding Shrinkage - Flow	0.25 to 0.46	%	ASTM D955			
Water Absorption (23°C, 24 hr)	0.10	%	ASTM D570			
Hardness	Nominal Value	Unit	Test Method			
Barcol Hardness	28 to 43		ASTM D2583			
Mechanical	Nominal Value	Unit	Test Method			
Tensile Strength (Yield)	41.4 to 55.2	MPa	ASTM D638			
Flexural Strength	96.5 to 124	MPa	ASTM D790			
Compressive Strength	165 to 193	MPa	ASTM D695			
Impact	Nominal Value	Unit	Test Method			
Notched Izod Impact	110 to 210	J/m	ASTM D256			
Thermal	Nominal Value	Unit	Test Method			
Deflection Temperature Under Load (1.8 MPa, Unannealed)	> 260	°C	ASTM D648			
Electrical	Nominal Value	Unit	Test Method			
Dielectric Strength <sup>1</sup>	14	kV/mm	ASTM D149			

Dielectric Constant (60 Hz)	5.50		ASTM D150
Dissipation Factor (60 Hz)	0.015		ASTM D150
Arc Resistance	> 210	sec	ASTM D495
Comparative Tracking Index (CTI)	> 600	V	UL 746
Inclined-Plane Tracking (2.5 kV)	> 900	min	ASTM D2303
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.794 mm	V-0		
1.59 mm	V-0		
3.18 mm	V-0		
6.35 mm	V-0		
Injection	Nominal Value	Unit	
Mold Temperature	138 to 166	°C	
NOTE			
1.	Method A (Short-Time)		

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#### Recommended distributors for this material

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