

BMC 5592

Bulk Molding Compound

PRODUCT DESCRIPTION

Glass fiber reinforced Polyester BMC suitable for third rail and other rapid transit insulators.

GENERAL

Material Status	• Commercial: Active		
Availability	• North America • Asia Pacific	• Europe • South America	
Filler/Reinforcement	• Glass Fiber and mineral filler		
Features	• Weather resistant grade • Excellent electrical properties	• Excellent impact strength	• Flame resistant
Processing Method	• This BMC product is generally intended to be compression, injection or transfer molded in matched metal die molds, typically at 300°F (150°C) and 500 to 1,000 psi (35-65 BAR) molding pressure. Strength values may be affected by the molding process.		
Resin	• Unsaturated Polyester Composite		

PHYSICAL	Typical	Unit	Test Method
Density	1.87	g/cm ³	ASTM D792
Mold Shrinkage (RT mold/RT part)	0.002-0.003	in/in	ASTM D955
Water Absorption, 24 hrs, 23°C	0.10	%	ASTM D570
Poisson's Ratio	0.36		ASTM D638

MECHANICAL (As molded)	Typical	Unit	Test Method
Tensile Strength	10,000-13,000 (69-89)	psi (MPa)	ASTM D638
Flexural Strength	23,000-27,000 (158-186)	psi (MPa)	ASTM D790
Compressive Strength	22,000-24,000 (151-165)	psi (MPa)	ASTM D695

IMPACT	Typical	Unit	Test Method
Izod Notched Impact Strength	13-15 (694-800)	ft-lb/in (J/m)	ASTM D256

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THERMAL	Typical	Unit	Test Method
Heat Deflection Temperature	500+ (260+)	°F (°C)	ASTM D648
Flame Resistance, Ignition time	200 min.	sec	ASTM D229
Flame Resistance, Burn time	50 max	sec	ASTM D229
Flame Propagation Index	1		ASTM E162
Smoke Generation DS @ 90 sec	0, 0		NFPA 258-T
Smoke Generation DS @ 240 sec	7, 1	°F	NFPA 258-T
Toxic Gas Analysis (Chlorine)	0, 0	ppm	NFPA 258-T

ELECTRICAL	Typical	Unit	Test Method
Dielectric Strength	370-400 (14.5-15.75)	Volts/mil (kV/mm)	ASTM D149
Arc Track Resistance	195+	seconds	ASTM D495
Comparative Tracking Index	600+	volts	ASTM D3638
Inclined Plane Track Resistance @2500 volts	1000+		ASTM D2303

For additional information, please contact:

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