

BMC 5209

Bulk Molding Compound

PRODUCT DESCRIPTION

Glass fiber reinforced Polyester BMC suitable for circuit breaker housings, standoff insulators, bus supports and tool housings.

GENERAL

Material Status	• Commercial: Active		
Availability	• North America • Asia Pacific	• Europe • South America	
Filler/Reinforcement	• Glass Fiber and mineral filler		
Features	• High impact strength • UL Recognized—File E69414	• Good electrical properties • UL94-V0 @ 1.8 mm RD, BK only	
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. Can be supplied in logs, slugs or bulk forms.		
Resin	• Unsaturated Polyester Composite		

PHYSICAL	Typical	Unit	Test Method
Density	1.90	g/cm ³	ASTM D792
Mold Shrinkage (RT mold/RT part)	0.001-0.002	in/in	ASTM D955
Water Absorption, 24 hrs, 23°C	0.05	%	ASTM D570
Hardness, Barcol	35-45	Barcol Units	ASTM D2583
Poisson's Ratio	0.36		ASTM D638

MECHANICAL (As molded)	Typical	Unit	Test Method
Tensile Strength	6,000-8,000 (41-55)	psi (MPa)	ASTM D638
Flexural Strength	18,000-20,000 (124-138)	psi (MPa)	ASTM D790
Compressive Strength	24,000-28,000 (165-193)	psi (MPa)	ASTM D695

IMPACT	Typical	Unit	Test Method
Izod Notched Impact Strength	6.0-9.0 (320-480)	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
UL RTI, Electrical	266 (130)	°F (°C)	UL 746B
UL RTI, Mechanical with Impact	266 (130)	°F (°C)	UL 746B
UL RTI, Mechanical without Impact	266 (130)	°F (°C)	UL 746B

FLAMMABILITY	Typical	Unit	Test Method
Flammability	Pass 0.07 (1.8)	in (mm)	UL94 V-0 BK, RD ONLY
Flammability	Pass 0.066 (1.7)	in (mm)	UL94 V-1 ALL

ELECTRICAL	Typical	Unit	Test Method
Dielectric Strength	350-380 (13.8-14.9)	Volts/mil (kV/mm)	ASTM D149
Arc Track Resistance	180+	seconds	ASTM D495
Comparative Tracking Index	600+	volts	ASTM D3638

UL File Number E69414



For additional information, please contact:

A. Schulman Inc., Engineered Composites
 1600 Powis Ct, West Chicago, IL 60185
 p: 630-377-1065
 f: 630-377-7395
www.aschulman.com

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