

BMC 620

Bulk Molding Compound

PRODUCT DESCRIPTION

Glass fiber reinforced Polyester BMC suitable for molded replacements for die castings, buss supports, circuit breaker housings, phase separators, and contactor blocks.

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	• Excellent electrical properties • UL94-V0 @ 1.7 mm RD, BK	• Excellent flame resistance • UL94-V0 @ 2.0 mm All
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. Bulk form only.		
Resin	• Unsaturated Polyester Composite		

PHYSICAL	Typical	Unit	Test Method
Density	1.73-1.79	g/cm ³	ASTM D792
Mold Shrinkage (RT mold/RT part)	0.0026-0.0038	in/in	ASTM D955
Water Absorption, 24 hrs, 23°C	0.14	%	ASTM D570
Hardness, Barcol	30-40	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	18,000-21,500 (124-148)	psi (MPa)	ASTM D790
Compressive Strength	18,000-22,000 (124-150)	psi (MPa)	ASTM D695

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IMPACT	Typical	Unit	Test Method
Izod Notched Impact Strength	6-9 (320-480)	ft-lb/in (J/m)	ASTM D256

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 0.067 (1.7)	in (mm)	UL94 V-0 RD, BK
Flammability	Pass 0.079 (2.0)	in (mm)	UL94 V-0 All

ELECTRICAL	Typical	Unit	Test Method
Dielectric Strength	360 (14.1)	Volts/mil (kV/mm)	ASTM D149
Arc Track Resistance	190+	seconds	ASTM D495
Comparative Tracking Index	500+	volts	ASTM D3638

UL File Number E69414



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