

BMC 1412A

Bulk Molding Compound

PRODUCT DESCRIPTION

Glass fiber reinforced Polyester BMC suitable for circuit breakers, power tool housings, standoff insulators and appliance parts. UL listed as 1412A#@. # denotes may be followed by an additional suffix letters indicating color. @ denotes may be followed by suffix "X" indicating the product is produced in extruded form.

GENERAL

Material Status	• Commercial: Active		
Availability	• North America • Asia Pacific	• Europe • South America	
Filler/Reinforcement	• Glass Fiber and mineral filler		
Features	• Low shrink • UL94-V0 @ 1.5 mm	• High physical properties	• UL Recognized—File E69414
Processing Method	• This BMC product is generally intended to be compression or injection 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. Extrusions available.		
Resin	• Unsaturated Polyester Composite		

PHYSICAL	Typical	Unit	Test Method
Density	1.75-1.80	g/cm ³	ASTM D792
Mold Shrinkage (RT mold/RT part)	0.001-0.003	in/in	ASTM D955
Water Absorption, 24 hrs, 23°C	0.12-0.18	%	ASTM D570
Hardness, Barcol	40-50	Barcol Units	ASTM D2583
Poisson's Ratio	0.36		ASTM D638

MECHANICAL (As molded)	Typical	Unit	Test Method
Tensile Modulus	1.8 x 10 ⁶ (12.4)	psi (GPa)	ASTM D638
Tensile Strength	6,000-7,000 (41-48)	psi (MPa)	ASTM D638
Flexural Modulus (RT)	1.9-2.0 x 10 ⁶ (13.1-13.8)	psi (GPa)	ASTM D790
Flexural Strength	23,000-25,000 (159-172)	psi (MPa)	ASTM D790
Compressive Strength	24,000-26,000 (165-179)	psi (MPa)	ASTM D695

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IMPACT	Typical	Unit	Test Method
Izod Notched Impact Strength	8-9 (427-481)	ft-lb/in (J/m)	ASTM D256

THERMAL	Typical	Unit	Test Method
Heat Deflection Temperature, 264 PSI	>500 (>260)	°F (°C)	ASTM D648
UL RTI, Electrical	160	°C	UL 746B
UL RTI, Mechanical with Impact	160	°C	UL 746B
UL RTI, Mechanical without Impact	160	°C	UL 746B

FLAMMABILITY	Typical	Unit	Test Method
Flammability	Pass 0.06 (1.5)	in (mm)	UL94 V-0

ELECTRICAL	Typical	Unit	Test Method
Dielectric Strength	490 (19)	Volts/mil (kV/mm)	ASTM D149
Arc Track Resistance	190+	seconds	ASTM D495

UL File Number E69414



For additional information, please contact:

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