BMC 880
Bulk Molding Compound

PRODUCT DESCRIPTION
Glass fiber reinforced Polyester BMC suitable for outdoor lighting applications and grill shelves.

GENERAL		
Material Status	• Commercial: Active	
Availability	• North America • Asia Pacific	• Europe • South America
Filler/Reinforcement	• Glass Fiber and mineral filler	
Features	• Excellent surface appearance • UL Recognized—File E69414	• Good stain resistance • UL94-V0/5V @2.0 mm • UL Approved for outdoor use (f1)
Processing Method	• This BMC product is generally intended to be compression, transfer or stuffer 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	1.75-1.90	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	0.1-0.2	%	ASTM D570
Hardness, Barcol	45-55	Barcol Units	ASTM D2583
CLTE, X-Y plane	28-33	ppm/°C	ASTM E831
Poisson's Ratio	0.36		ASTM D638

MECHANICAL (As molded)	Typical	Unit	Test Method
Tensile Modulus	$1.8\text{-}2.0 \times 10^6$ (12.4-13.8)	psi (GPa)	ASTM D638
Tensile Strength	6,000-8,000 (40-55)	psi (MPa)	ASTM D638
Flexural Modulus (RT)	$1.7\text{-}1.9 \times 10^6$ (11.7-13.1)	psi (GPa)	ASTM D790
Flexural Strength	15,000-20,000 (100-135)	psi (MPa)	ASTM D790
Compressive Strength	17,000-20,000 (115-135)	psi (MPa)	ASTM D695
Dynatup: Total Energy	5.8-6.2	ft-lb	ASTM D3763
Dynatup: Energy to Max Load	3.0-4.0	ft-lb	ASTM D3763
Dynatup: Maximum Load	360-280	lbs	ASTM D3763

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IMPACT	Typical	Unit	Test Method
Izod Notched Impact Strength	3.0-4.0 (160-210)	ft-lb/in (J/m)	ASTM D256

THERMAL	Typical	Unit	Test Method
Heat Deflection Temperature	>450 (>230)	°F (°C)	ASTM D648
Glass Transition T_g	311-329 (155-165)	°F (°C)	ASTM D4065
UL RTI, Electrical	130	°C	UL 746B
UL RTI, Mechanical with Impact	130	°C	UL 746B
UL RTI, Mechanical without Impact	130	°C	UL 746B

FLAMMABILITY	Typical	Unit	Test Method
Flammability	Pass 0.08 (2.0)	in (mm)	UL94 V-0/5VA

ELECTRICAL	Typical	Unit	Test Method
Dielectric Strength	512 (20.2)	Volts/mil (kV/mm)	ASTM D149
Arc Track Resistance	229	seconds	ASTM D495
Comparative Tracking Index	600+	volts	ASTM D2303
Hot Wire Ignition, HWI	120+	sec	ASTM D3874
High Amp Arc Ignition, HAI	200+	arcs	UL746A
High Voltage Arc Tracking Rate, HVTR	0.0	mm/min	UL746A
Volume Resistivity	1.96 x 10^{13}	ohm/mm	ASTM D257

UL File Number E69414

For additional information, please contact:

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