Technical Data Sheet **BMC** 400

Engineered Composites



Product Description

Glass Fiber reinforced Polyester BMC suitable for circuit breakers, electric motor housings and end bells, HVAC drain pans, power tool housings and structural parts.

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General			
Material Status	Commercial: Active		
Availability	North AmericaAsia Pacific	EuropeSouth America	
Filler / Reinforcement	Glass Fiber and Mineral Filler		
Features	Outstanding FlowUL94-V0 @ 1.5 mm	 Excellent electrical properties UL Recognized – File E69414 	Low shrink
Processing Method	 This BMC product is generally intended to be compression, injection or transfer molded in matched metal 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 bulk or extruded form. 		
Resin	Unsaturated Polyester		
Physical	Typical	Unit	Test Method
Density	1.8	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	<0.24	%	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 Modulus	1.9 E+6 (13.1)	psi (GPa)	ASTM D638
Tensile Strength	7,000 (48)	psi (MPa)	ASTM D638
Flexural Modulus (RT)	1.8 E+6 (12.4)	psi (GPa)	ASTM D790
Flexural Strength	18,500 (127)	psi (Mpa)	ASTM D790
Compressive Strength	21,000 (145)	psi (Mpa)	ASTM D695
Impact	Typical	Unit	Test Method
Izod Notched Impact Strength	7 (370)	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	266 (130)	°C	UL 746B
UL RTI, Mechanical with Impact	266 (130)	°C	UL 746B
UL RTI, Mechanical without Impact	266 (130)	°C	UL 746B
Flammability	Typical	Unit	Test Method
Flammability	Pass 0.060 (1.5)	in (mm)	UL94 V-0
Electrical	Typical	Unit	Test Method
Dielectric Strength	500 (20)	Volts/mil (kV/mm)	ASTM D149
Arc Track Resistance	180+	seconds	ASTM D495
Comparative Tracking Index	500 - 600	volts	ASTM D2303
Hot Wire Ignition, HWI	60 – 119	sec	ASTM D3874
High Amp Arc Ignition, HAI	> 120	arcs	UL746A
High Voltage Arc Tracking Rate, HVTR	< 10	mm/min	UL746A

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Notes

These are typical property values not to be construed as specification limits.

Processing Techniques

Specific recommendations for resin type and processing conditions can only be made when the end use, required properties and fabrication equipment are known.

Company Information

For further information regarding the LyondellBasell company, please visit http://www.lyb.com/.

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