

Product Description

Glass fiber reinforced polyester BMC suitable for Automotive Headlamp and Fog Lamp Reflectors and Automotive Body Panels. This material meets the Specification of EN 10 204/DIN 50 049-3.1B & GMW170

General

Material Status	• Commercial: Active
Availability	• Europe • America
Filler / Reinforcement	• Glass Fiber and mineral filler
Features	• Can be coated using traditional or electrostatic coating system • Excelent adhesion characteristics
Processing Method	• This BMC product is generally intended to be compression 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.
Resin	Unsaturated Polyester Composite

Physical	Typical	Unit	Test Method
Density	1.97 - 2.03	g/cm ³	ISO 1183
Mold Shrinkage	0.0000 - 0.0010	in/in	ASTM D955**
	(-0.05) - (+0.05)	%	ISO 2577
Hardness, Barcol	60 - 75	Barcol Units	ASTM D2583**
Color	Beige nature		reference sample
Ash content	79 - 80	%	ISO 3451/2
Glass fiber	11.5 - 12.5	-	-
Mechanical (D)	Typical	Unit	Test Method
Flexural Strength at break	>90	MPa	DIN EN ISO 178
Flexural Modulus	>13,000	MPa	DIN EN ISO 178
Flexural Modulus at 150°C	≥2,500	MPa	ISO 178
Flexural Strength	15,000 Min	PSI	ASTM D790**
Tensile Strength at break	≥ 20	MPa	ISO 527
Tensile Modulus	≥ 7,000	MPa	ISO 527
Poison's Ratio	0.3	-	-
Tensile Strength	5,000 Min	PSI	ASTM D638**
Compressive Strength	200	MPa	ISO 604
Impact (D)	Typical	Unit	Test Method
Izod Unnotched Impact Strength	≥ 40	J/m	ISO 180U
Charpy Impact Strength hot 180°C	>8.0	KJ/m ²	EN ISO 179-1eU
dir. a ejection cool rT	>9.0	KJ/m ²	EN ISO 179-1eU
Izod Notched Impact Strength	3.0 Min	ft-Lb/in	ASTM D256**
Flammability (S)	Typical	Unit	Test Method
Burning behavior acc. To FMVSS 302 (burning velocity below of 100mm/min)	≥ 1	mm	ISO 3795
Thermal	Typical	Unit	Test Method
Coefficient of linear Thermal Expansion	33	µm/(m°C)	ISO 11359-2
Glass transition temperature	≥180	°C	ISO 11357-2
Temp. of deflection under load (1.8 Mpa)	≥260	°C	ISO 75-2

Values for ISO methods were obtained with specimens molded by injection

**Values for ASTM methods were obtained with specimens molded by compression

(D) Is considered as a Special Characteristic classified as Characteristic that could affect the performance of the product.

(S) Is considered as a Special Characteristic classified as Characteristic that could affect the safety of the product.

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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