

Technical Data Sheet



Bmc 1454

Thermoset Polyester
LyondellBasell Industries
Engineering Plastics

Product Description

BMC 1454 is a special low-cost material developed specifically for injection molding circuit breakers. It has considerable flame, arc and track resistance. BMC 1454 is a medium strength material with excellent flexural strength necessary to meet the arc interruption test required for circuit breakers. UL® recognized. This material was formerly known as Glastic® 1454.

General

Material Status	• Commercial: Active		
Availability	• North America		
Filler / Reinforcement	• Glass Fiber		
Features	• Arc Resistant	• Flame Retardant	• Good Strength
	• Electrically Insulating	• Good Electrical Properties	• Tracking Resistant
Uses	• Electrical Parts	• Electrical/Electronic Applications	
Forms	• BMC - Bulk Molding Compound		
Processing Method	• Compression Molding	• Injection Molding	

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.88 to 1.94	1.88 to 1.94 g/cm ³	ASTM D792
Water Absorption (24 hr, 73°F (23°C))	0.070 to 0.12 %	0.070 to 0.12 %	ASTM D570
Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Strength	5000 to 6000 psi	34.5 to 41.4 MPa	ASTM D638
Flexural Modulus	1.40E+6 to 1.60E+6 psi	9650 to 11000 MPa	ASTM D790
Flexural Strength	11000 to 13000 psi	75.8 to 89.6 MPa	ASTM D790
Compressive Strength	23000 to 25000 psi	159 to 172 MPa	ASTM D695
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact	4.5 to 5.5 ft-lb/in	240 to 290 J/m	ASTM D256
Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Barcol Hardness	40 to 50	40 to 50	ASTM D2583
Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Deflection Temperature Under Load 264 psi (1.8 MPa), Unannealed	> 500 °F	> 260 °C	ASTM D648
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Dielectric Strength (Method A (Short-Time))	520 V/mil	20 kV/mm	ASTM D149
Dissipation Factor			ASTM D150
60 Hz ¹	0.027	0.027	
60 Hz ²	0.058	0.058	
1 MHz ¹	0.14	0.14	
1 MHz ²	0.15	0.15	
Arc Resistance	213 sec	213 sec	ASTM D495
Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating	V-0	V-0	UL 94
Additional Information	Nominal Value (English)	Nominal Value (SI)	
Track Resistance	1.0 day	1.0 day	

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Injection	Nominal Value (English)	Nominal Value (SI)
Processing (Melt) Temp	536 to 626 °F	280 to 330 °C

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Notes

¹ Condition A

² Condition D

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.

Product Storage and Handling

- Product should be stored in dry conditions at temperatures below 50°C and protected from UV-light
- Improper storage may bring damage to the packaging and can negatively affects on the quality of this product
- Keep material completely dry for good processing

Company Information

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

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