

Technical Data Sheet**Glastic 1410**

Thermoset Polyester
LyondellBasell Industries
Engineering Plastics

Product Description

Grade 1410 is a high-strength electrical grade material with excellent flammability resistance. In most applications, this material is competitive with SMC. Equal performance at a lower cost. Normally compression molded, but has been successfully injection molded in a number of applications.

General

Material Status	• Commercial: Active		
Availability	• North America		
Filler / Reinforcement	• Glass Fiber		
Features	• Electrically Insulating • Flame Retardant	• Good Electrical Properties • High Strength	
Uses	• Electrical/Electronic Applications	• Electronic Insulation	
Appearance	• Black • Colors Available	• Red • Tan	• White
Forms	• BMC - Bulk Molding Compound		
Processing Method	• Compression Molding	• Injection Molding	

Physical	Nominal Value (English)		Nominal Value (SI)	Test Method
Density / Specific Gravity	1.86		1.86 g/cm ³	ASTM D792
Water Absorption (24 hr)	0.19 %		0.19 %	ASTM D570
Mechanical	Nominal Value (English)		Nominal Value (SI)	Test Method
Tensile Modulus (Compression Molded)	2.00E+6 psi		13800 MPa	ASTM D638
Tensile Strength (Yield, Compression Molded)	4820 psi		33.2 MPa	ASTM D638
Flexural Modulus (Compression Molded)	2.40E+6 psi		16500 MPa	ASTM D790
Flexural Strength (Compression Molded)	27900 psi		192 MPa	ASTM D790
Compressive Strength	21200 psi		146 MPa	ASTM D695
Shear Strength	12000 psi		82.6 MPa	ASTM D732
Impact	Nominal Value (English)		Nominal Value (SI)	Test Method
Notched Izod Impact (Compression Molded)	15 ft·lb/in		800 J/m	ASTM D256
Thermal	Nominal Value (English)		Nominal Value (SI)	Test Method
Deflection Temperature Under Load 264 psi (1.8 MPa), Unannealed, Compression Molded	500 °F		260 °C	ASTM D648
RTI Elec	130 °F		54.4 °C	UL 746B
RTI Str	130 °F		54.4 °C	UL 746B
Electrical	Nominal Value (English)		Nominal Value (SI)	Test Method
Surface Resistivity	7.9E+14 ohms		7.9E+14 ohms	ASTM D257
Dielectric Strength (Method A (Short-Time))	490 V/mil		19 kV/mm	ASTM D149
Dielectric Constant				ASTM D150
60 Hz	•	6.90	•	6.90
	•	7.50	•	7.50
1 MHz	•	5.10	•	5.10
	•	5.20	•	5.20
Dissipation Factor				ASTM D150
60 Hz	•	0.031	•	0.031
	•	0.055	•	0.055
1 MHz	•	0.19	•	0.19
	•	0.20	•	0.20
Arc Resistance	185 sec		185 sec	ASTM D495
Flammability	Nominal Value (English)		Nominal Value (SI)	Test Method
Flame Rating	V-0		V-0	UL 94

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Additional Information

Permittivity, ASTM D150, 60 Hz, Condition A: 6.9
Permittivity, ASTM D150, 60 Hz, Condition D: 7.5
Permittivity, ASTM D150, 1 MHz, Condition A: 5.1
Permittivity, ASTM D150, 1 MHz, Condition D: 5.1
Insulation Resistance, ASTM D257, Condition A: 78.5 Ohm x 10e13
Insulation Resistance, ASTM D257, Condition C: 2.8 Ohm x 10e13
Track Resistance, ASTM D2303: 285 minutes
Dissipation Factor, ASTM D150, 60 Hz, Condition A: 0.031
Dissipation Factor, ASTM D150, 60 Hz, Condition D: 0.055
Dissipation Factor, ASTM D150, 1 MHz, Condition A: 0.187
Dissipation Factor, ASTM D150, 1 MHz, Condition D: 0.195

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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