

Technical Data Sheet



Glastic 1403

Thermoset Polyester
LyondellBasell Industries
Engineering Plastics

Product Description

Grade 1403 is one of the most useful general purpose electrical grade materials available on the market. Competitive against phenolic, melamine and urea materials for electrical applications. Easy molding in compression, transfer and injection processes. Stable shelf life.

General

Material Status	• Commercial: Active		
Availability	• North America		
Filler / Reinforcement	• Glass Fiber		
Features	• Electrically Insulating	• General Purpose	• Good Electrical Properties
Uses	• Electrical Housing	• Electrical Parts	• Electrical/Electronic Applications
Appearance	• Black • Colors Available	• Red • White	
Forms	• BMC - Bulk Molding Compound		
Processing Method	• Compression Molding	• Injection Molding	

Physical	Nominal Value (English)		Nominal Value (SI)	Test Method
Density / Specific Gravity	1.94		1.94 g/cm ³	ASTM D792
Water Absorption (24 hr)	0.13 %		0.13 %	ASTM D570
Mechanical	Nominal Value (English)		Nominal Value (SI)	Test Method
Tensile Modulus (Compression Molded)	2.50E+6 psi		17200 MPa	ASTM D638
Tensile Strength (Yield, Compression Molded)	5840 psi		40.3 MPa	ASTM D638
Flexural Modulus (Compression Molded)	1.90E+6 psi		13100 MPa	ASTM D790
Flexural Strength (Compression Molded)	15500 psi		107 MPa	ASTM D790
Compressive Strength	22500 psi		155 MPa	ASTM D695
Shear Strength	6530 psi		45.0 MPa	ASTM D732
Impact	Nominal Value (English)		Nominal Value (SI)	Test Method
Notched Izod Impact (Compression Molded)	3.5 ft-lb/in		190 J/m	ASTM D256
Thermal	Nominal Value (English)		Nominal Value (SI)	Test Method
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	4.8E+14 ohms		4.8E+14 ohms	ASTM D257
Dielectric Strength	440 V/mil		17 kV/mm	ASTM D149
Dielectric Constant				ASTM D150
60 Hz	•	5.80	•	5.80
	•	6.40	•	6.40
1 MHz	•	4.40	•	4.40
	•	4.70	•	4.70
Dissipation Factor				ASTM D150
60 Hz	•	0.026	•	0.026
	•	0.058	•	0.058
1 MHz	•	0.078	•	0.078
	•	0.12	•	0.12
Arc Resistance	199 sec		199 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: 5.8
Permittivity, ASTM D150, 60 Hz, Condition D: 6.4
Permittivity, ASTM D150, 1 MHz, Condition A: 4.4
Permittivity, ASTM D150, 1 MHz, Condition D: 4.7
Insulation Resistance, ASTM D257, Condition A: 48.1 Ohm x 10e13
Insulation Resistance, ASTM D257, Condition C: 1.0 Ohm x 10e13
Track Resistance, ASTM D2303: 105 minutes
Dissipation Factor, ASTM D150, 60 Hz, Condition A: 0.026
Dissipation Factor, ASTM D150, 60 Hz, Condition D: 0.058
Dissipation Factor, ASTM D150, 1 MHz, Condition A: 0.078
Dissipation Factor, ASTM D150, 1 MHz, Condition D: 0.119

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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