

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			
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 <sup>3</sup>	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 • 6.40	• 5.80 • 6.40	
1 Mhz	• 4.40 • 4.70	• 4.40 • 4.70	
Dissipation Factor			ASTM D150
60 Hz	• 0.026 • 0.058	• 0.026 • 0.058	
1 Mhz	• 0.078 • 0.12	• 0.078 • 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.