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			
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/cm³	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			ASTM D648
264 Psi (1.8 Mpa), Unannealed, Compression Molded	500 °F	260 °C	
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 • 7.50	• 6.90 • 7.50	
1 Mhz	• 5.10 • 5.20	• 5.10 • 5.20	
Dissipation Factor			ASTM D150
60 Hz	• 0.031 • 0.055	• 0.031 • 0.055	
1 Mhz	• 0.19 • 0.20	• 0.19 • 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.