

Technical Data Sheet**Glastic 1603**

Thermoset Polyester
LyondellBasell Industries
Engineering Plastics

Product Description

Grade 1603 is a multi-purpose, moderate strength, low-cost material that is suitable for injection, compression and transfer molding.

General

Material Status	• Commercial: Active	
Availability	• North America	
Filler / Reinforcement	• Glass Fiber	
Features	• Flame Retardant	• Tracking Resistant
Uses	• Automotive Applications • Automotive Electronics	• Bushings • Standoff Insulators
UL File NumberUSA	• E81713	
Appearance	• Black • Colors Available	• Red • White
Forms	• Pellets	
Processing Method	• Compression Molding	• Injection Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density / Specific Gravity	1.98	1.98 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)	2.30E+6 psi	15900 MPa	ASTM D638
Tensile Strength (Yield, Compression Molded)	6230 psi	42.9 MPa	ASTM D638
Flexural Modulus (Compression Molded)	1.80E+6 psi	12400 MPa	ASTM D790
Flexural Strength (Compression Molded)	13000 psi	89.7 MPa	ASTM D790
Compressive Strength	29900 psi	206 MPa	ASTM D695
Shear Strength	7390 psi	50.9 MPa	ASTM D732
Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (Compression Molded)	4.3 ft-lb/in	230 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	• 1.2E+15 • 1.4E+14 ohms	• 1.2E+15 • 1.4E+14 ohms	ASTM D257
Dielectric Strength (Method A (Short-Time))	440 V/mil	17 kV/mm	ASTM D149
Dielectric Constant			ASTM D150
60 Hz	• 6.30 • 6.80	• 6.30 • 6.80	
1 MHz	• 5.20 • 5.70	• 5.20 • 5.70	
Dissipation Factor			ASTM D150
60 Hz	• 0.015 • 0.027	• 0.015 • 0.027	
1 MHz	• 0.090 • 0.12	• 0.090 • 0.12	
Arc Resistance	180 sec	180 sec	ASTM D495

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Flammability	Nominal Value (English)	Nominal Value (SI)	Test Method
Flame Rating	V-0	V-0	UL 94

Additional Information

Permittivity, ASTM D150, 60 Hz, Condition A: 6.3
Permittivity, ASTM D150, 60 Hz, Condition D: 6.8
Permittivity, ASTM D150, 1 MHz, Condition A: 5.2
Permittivity, ASTM D150, 1 MHz, Condition D: 5.7
Insulation Resistance, ASTM D257, Condition A: 122 Ohm x 10e13
Insulation Resistance, ASTM D257, Condition C: 13.9 Ohm x 10e13
Track Resistance, ASTM D2303: 500 minutes
Dissipation Factor, ASTM D150, 60 Hz, Condition A: 0.015
Dissipation Factor, ASTM D150, 60 Hz, Condition D: 0.027
Dissipation Factor, ASTM D150, 1 MHz, Condition A: 0.099
Dissipation Factor, ASTM D150, 1 MHz, Condition D: 0.124

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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