

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

Filler / Reinforcement	• Glass Fiber
Features	• Flame Retardant • Tracking Resistant
Uses	• Automotive Applications • Bushings • Automotive Electronics • Standoff Insulators
UL File NumberUsa	• E81713
Appearance	• Black • Red • Colors Available • 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 ohms • 1.4E+14	• 1.2E+15 ohms • 1.4E+14	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.