

DATASHEET

10G40 TUFNOL

The Tufnol range of high-quality epoxy resin bonded glass fabric laminates offer very high mechanical strength and low moisture absorption, combined with excellent electrical properties, under both dry and humid conditions. They are rigid materials with good dimensional stability and good resistance to a wide range of working environments.

Applications

- Large Turbine Generators
- High Strength Bolt Insulation in Structures
- Components for Cryogenic Superconducting Magnets

Availability

- Colour – Natural
- Type – Sheet & Rod
- Regularly produced in a wide variety of thicknesses

Typical Properties

Property	Units	Result
Cross Breaking Strength	MPa	490
Impact Strength, Notched, Charpy	kJ/m ²	60
Compressive Strength, Flatwise	MPa	415
Compressive Strength, Edgewise	MPa	300
Tensile Strength	MPa	355
Young's Modulus	GPa	17.7
Water Absorption:		
- 1.6mm thick	mg	5
- 3mm thick	mg	7
- 6mm thick	mg	10
- 12mm thick	mg	15
Electric Strength, Flatwise in Oil at 90°C:		
- 1.6mm thick	MV/m	17
- 3mm thick	MV/m	15
- 6mm thick	MV/m	12
Electrical Strength, Edgewise in Oil at 90°C	kV	75
Insulation Resistance after Immersion in Water	ohms	1x1101
Loss Tangent at 1 MHz	-	0.017
Permittivity at 1 MHz	-	5.0
Relative Density	-	1.90
Comparative Tracking Index		285
Maximum Working Temperature:		

- Continuous	°C	130
- Intermittent	°C	150
Thermal Classification	-	Class B
Thermal Conductivity through Laminae	W/(mK)	0.42
Thermal Expansion in Plane of Laminae	X10-5/K	1.1