

# DATASHEET

## WHALE TUFNOL

Whale Tufnol is a good, general-purpose medium weave grade for mechanical applications. It has excellent all round physical properties with strength, good toughness, and wear resistance. It is used for electrical applications at low voltages only.

### Applications

- Mechanical Parts
- Gears
- Spacers
- Jigs & Fixtures
- Wear Resistant Components
- Low Voltage Insulation

### Availability

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

### Typical Properties

Property	Units	Result
Cross Breaking Strength	MPa	130
Impact Strength, Notched, Charpy	kJ/m <sup>2</sup>	11.5
Compressive Strength, Flatwise	MPa	310
Compressive Strength, Edgewise	MPa	200
Shear Strength, Flatwise	MPa	90
Tensile Strength	MPa	68
Young's Modulus	GPa	6.3
Water Absorption:		
- 1.6mm thick	mg	90
- 3mm thick	mg	105
- 6mm thick	mg	130
- 12mm thick	mg	160
Electric Strength, Flatwise in Oil at 90°C:		
- 1.6mm thick	MV/m	4.5
- 3mm thick	MV/m	2.6
- 6mm thick	MV/m	2.0
Electrical Strength, Edgewise in Oil at 90°C	kV	20
Insulation Resistance after Immersion in Water	ohms	1x10 <sup>8</sup>
Relative Density	-	1.36
Maximum Working Temperature:		
- Continuous	°C	120

- Intermittent	°C	130
Thermal Classification	-	Class E
Thermal Conductivity through Laminae	W/(mK)	0.32
Thermal Expansion in Plane of Laminae	X10-5/K	2.2
Specific Heat	kJ/(kgK)	1.5