

# DATASHEET

## CARP TUFNOL

Carp Tufnol is a top-quality grade for mechanical and electromechanical applications. It is made from a premium quality fine weave cotton fabric which has been specially treated to enhance the machinability and other properties. Strong, with good wear resistance, it has excellent machining qualities and low water absorption, with good dimensional stability. Electrical properties are excellent for this class of material. Resistance to impact, however, is slightly less than the coarser weave grades of Tufnol.

### Applications

- High Accuracy Machined Parts
- Fine Toothed Gears
- Cans
- Geneva Wheels
- Seal Retaining Rings
- Actuating Arms
- Insulating Sleeves & Bushes

### Availability

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

### Typical Properties

Property	Units	Result
Cross Breaking Strength	MPa	150
Impact Strength, Notched, Charpy	kJ/m <sup>2</sup>	8.6
Compressive Strength, Flatwise	MPa	350
Compressive Strength, Edgewise	MPa	200
Resistance to Flatwise Compression	%	1.4
Shear Strength, Flatwise	MPa	105
Tensile Strength	MPa	68
Young's Modulus	GPa	6.5
Water Absorption:		
- 1.6mm thick	mg	55
- 3mm thick	mg	70
- 6mm thick	mg	90
- 12mm thick	mg	125
Electric Strength, Flatwise in Oil at 90°C:		
- 1.6mm thick	MV/m	7.2
- 3mm thick	MV/m	4.9
- 6mm thick	MV/m	4.0



Electrical Strength, Edgewise in Oil at 90°C	kV	23
Insulation Resistance after Immersion in Water	ohms	7x10 <sup>9</sup>
Relative Density	-	1.36
Maximum Working Temperature:		
- Continuous	°C	120
- Intermittent	°C	130
Thermal Classification	-	Class E
Thermal Conductivity through Laminae	W/(mK)	0.37
Thermal Expansion in Plane of Laminae	X10 <sup>-5</sup> /K	1.9
Specific Heat	kJ/(kgK)	1.5