

tufnol.com

Red Fibre & Black Fibre

# Vulcanised Fibre Sheet.

#### Polyester glass mat laminates.

TUFNOL Vulcanised Fibre sheet is a strong, lightweight cellulose fibre material, with physical properties which make it ideal for many applications in electrical and electromechanical equipment.

It is resistant to mineral oils, petrol, greases and many solvents, it is not readily degraded by exposure to sunlight and it does not readily carbonise when subjected to surface electrical discharges.

TUFNOL Vulcanised Fibre sheet offers the following properties:

- Arc resistance
- Arc quenching
- · High dielectric strength
- Low thermal conductivity
- Light weight
- High flexural strength
- Excellent tear resistance

#### Types available

#### Standard sizes:

Sheet size: 2100 x 1100mm

Thicknesses:

0.5mm to 2.5mm Laminated sheets 2.5mm to 25mm

#### Colours:

Standard colour is red.
Black can be supplied, subject to special enquiry.

#### Machining

TUFNOL Vulcanised Fibre has the ability to be folded, formed or bent and machined using conventional machining methods.

It can be bonded to other materials such as plywood, hardboard, metal or aluminium sheeting for a variety of applications, such as EMI shielding, sound insulation and fabrication of luggage cases, etc.

#### **Applications**

The versatility of Vulcanised Fibre sheet makes it ideal for such applications as:

- Abrasive disc backing
- Arc chutes
- Slot cell insulators
- Insulating washers and shields
- Electrical standoffs
- Pump and pipe gaskets
- Thermal standoffs
- Motor end laminations





### **Physical Properties**

Property	Standard	Typical Value	Units
Tensile strength			
- longitudinal	DIN 53455	700 - 800	km/cm²
- transverse		420 - 500	km/cm²
Flexural strength			
- longitudinal	DIN 53452	1800	km/cm²
- transverse		1200	km/cm²
Impact strength			
- longitudinal	DIN 53453	30 - 40	km/cm²
- transverse		20 - 30	km/cm²
Density	DIN 53479	1.20	g/cm³
Dielectric strength	UNE 21-316-74 CEI 243	<b>&gt;</b> 6	kV/mm
Insulation resistance	DIN 53482	10 <sup>8</sup>	ohms
Loss Factor at 50Hz	DIN 53483	0.18	-
Ash content		19 - 28	%
Water content	_	<12	%
Water absorption	DIN 53475	1.84	g/mm

Notes



# Vulcanised Fibre Sheet.

### Reliability in the field of engineering plastics & composites.

Tufnol is the byword for quality in laminated plastics and resin based materials for engineering applications. It was invented here in the UK and its development to meet modern engineering demands continues to keep it abreast of 21st century technology.

This type of material is known as 'synthetic resin bonded laminated plastic', and is made from layers of paper, cotton cloth or woven glass fibre cloth, dipped in resin, then compressed and bonded together in a hot press. It is a strong, hard material, made in a number of different grades with varying properties and uses.

Tufnol's reliability is key to the many sectors of engineering industry in which it serves.

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Tufnol warrants the materials it produces will conform to Tufnol specifications. It is entirely the customer's responsibility to make the final product choice and satisfy themselves of the suitability of the product for the intended application and carrying out testing where required. Tufnol does not warrant the conformity of its materials to these properties or the suitability of its materials for any particular purpose.

The values are "typical only" and are based on test results generally in accordance with Test methods BS EN 60893-2, where applicable.

