

FTL137

✓ **General description:**

FTL137 is a closely woven, semi-flexible friction material. It is based on yarn spun from a blend of glass and synthetic fibres together with a fine copper wire to enhance its strength and heat dissipation properties. The impregnant has been specially developed to give it good frictional properties combined with a good degree of flexibility. It has a high coefficient of friction and performs well in wet and damp environments which makes it particularly suited for marine applications.

To help during fitting to brake shoes and bands it can be softened and made more pliable by warming in a bonding oven to between 150 & 180°C for sufficient time for the heat to penetrate the fabric.

This material is not suited to operate in oil-immersed conditions

✓ **Application:**

Industrial drum and band-brakes.
Industrial clutches.
Marine mooring & towing winches.
Miscellaneous industrial devices.

✓ **Bonding:**

FTL137 may be bonded using any of the established adhesives recommended for friction material. However, to obtain the best results it is necessary to use a thermosetting adhesive.

✓ **Mating Surface**

A good quality, fine grained, pearlitic cast iron or cold rolled steel with a Brinell hardness of 180. Cast steels are not recommended

✓ **Recommended Operation Range:**

Pressure	
Static	100 – 2,500 kN/m ²
Dynamic	100 – 1,000 kN/m ²
Max. rubbing speed	25 m/s
Max. continuous temperature	140 °C
Max. intermittent temperature	180 °C
Max. temperature	200 °C

✓ **Availability**

Roll

Lengths: 10.0 metres (nominal) below 15 mm thick
7.5 metres (nominal) 15 mm thick & above
Maximum width: 330 mm below 15 mm
510 mm 15 mm thick & above

Thickness range: 3.2 to 20.0 mm

Sheets

1067 x 660 mm wide

Thickness range: 4.8 to 12.7 mm

✓ **Technical Data**

Static Friction Coefficient	0.52
Dynamic Friction Coefficient	TBD
Density	1.06-1.20 g/cm ³
Tensile Strength	47-75 N/mm ²
Compressive Strength	100-155 N/mm ²
Shear Strength	13-25 N/mm ²
Rivet Holding Capacity	60-100 N/mm ²

✓ **Test Conditions**

Temperature Sensitivity

Application speed 15 m/s
Clamping pressure 0.61 MN/m²
Temperatures ranging from 50 to 350°C in steps of 25°C

Initial Bedding

Application speed 15 m/s
Clamping pressure 0.61 MN/m²
Average Temperature 140°C

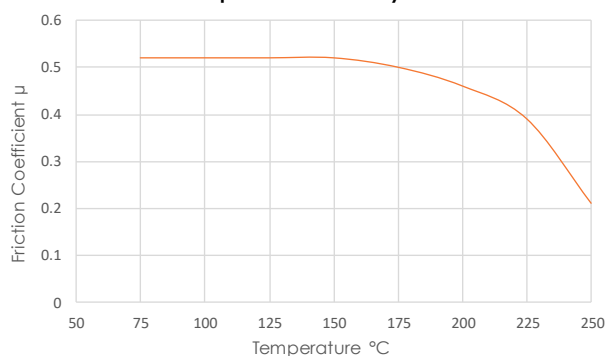
Pressure Sensitivity

Application speed 15 m/s
Average temperature 80°C

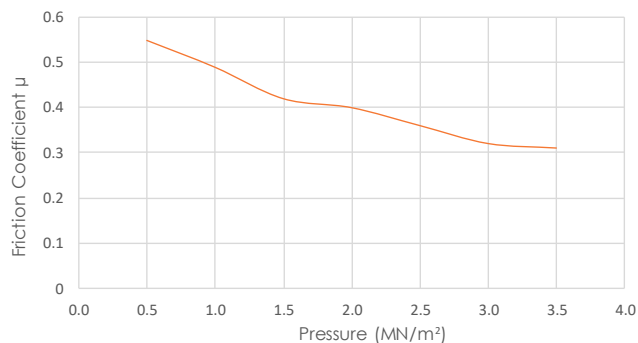
Speed Sensitivity

Clamping pressure 0.61 MN/m²
Average temperature 800C

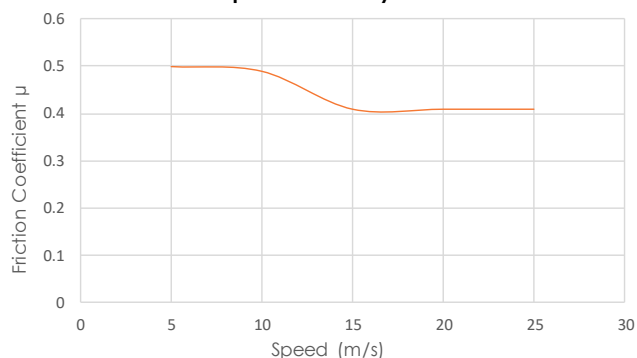
Temperature Sensitivity



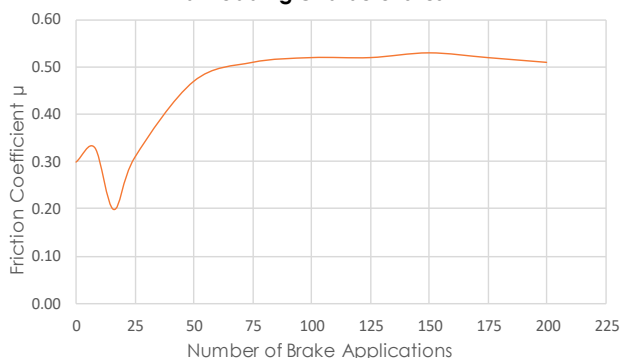
Pressure Sensitivity



Speed Sensitivity



Initial Bedding Characteristics



The information supplied in this data sheet is believed to be accurate and reliable, was obtained by scientific and laboratory testing. However, since actual conditions of use are largely outside the control of Industrial Clutch Parts Ltd, it is suggested that this material be thoroughly tested and its suitability for use be determined before final acceptance.