

# FTL180

## ✓ General description:

**FTL180** is a high performance, high friction, non-metal composite material containing a high percentage of aramid fibre. It can be considered as an alternative for sintered metal materials and offers many advantages.

It will resist high energy input and is suitable for both dry and oil-immersed applications. It is not abrasive to the counter material, is silent in operation and it will resist high pressures. The wear rate is low even at high temperatures.

**FTL180** is available in thicknesses from 0.6mm to 5mm. With a higher Kevlar composition in order to increase friction characteristics.

## ✓ Application:

**FTL180** is suitable for

- Clutch buttons
- Heavy vehicles clutches
- Miscellaneous industrial brakes/clutches.

## ✓ Bonding:

**FTL180** 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. The material is supplied ground on both surfaces, and so it may be bonded on either surface without any preparation providing it is kept clean

## ✓ Mating Surface

A good quality, fine grained, pearlitic cast iron or cold rolled steel with a Brinell hardness between 150 - 200. Cast steels are not recommended.

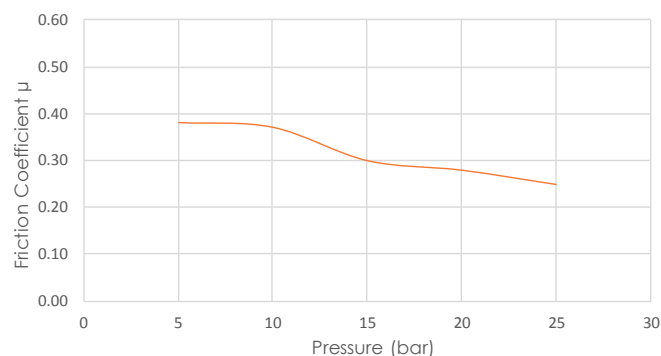
## ✓ Recommended Operation Range:

Max. Continuous Temperature	360 °C
Max. Intermittent Temperature	400 °C

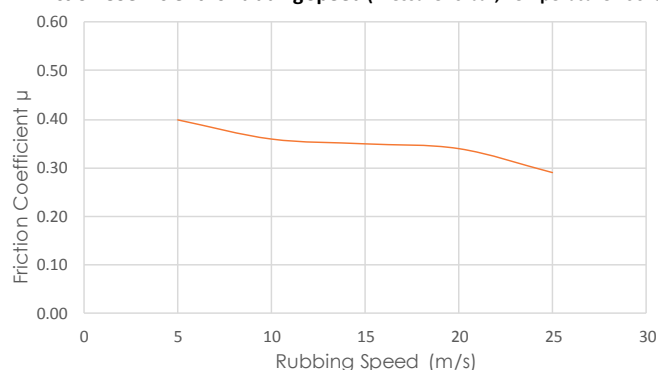
## ✓ Technical Data

Static Friction Coefficient (15bar, from box)	0.41
Static Friction Coefficient (15bar, 100°C)	0.45
Dynamic Friction Coefficient (10bar, 10m/s)	0.36
Density	1.21g/cm <sup>3</sup>
Tensile Strength (ASTM D638)	72N/mm <sup>2</sup>
Compressive Strength (UNE 53205)	308N/mm <sup>2</sup>
Burst Resistant (200x137x3.5)x200 °C	18180RPM
Young Modulus (ASTMD 638-10)	7290 N/mm <sup>2</sup>
Poisson Coefficient:	0.28
Hardness (Shore - D)	82
Wear Rate (79N, 7m/s)	53 mm <sup>3</sup> /Kwh
Fading temperature (100N, 11.5m/s)	395 °C
Thermal Conductivity (ASTMD 638-10)	0.24W/m <sup>2</sup> K

**Friction Coefficient vs Pressure (Speed 10m/s; Temperature 100°C)**



**Friction Coefficient vs Rubbing Speed (Pressure 10 bar; Temperature 100°C)**



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.