

FTL123

✓ General description:

FTL123 is a non-asbestos friction material. It is a flexible, semi-cured, moulded product and is manufactured from a variety of mineral fibres and other non-metallic substances in random dispersion. **FTL123** has a marginally lower friction coefficient when compared with **FTL132** but has been developed to retain its excellent friction stability and wear resistant properties. This material ground on both surfaces during manufacture and is therefore suitable for bonding on either side.

As supplied, **FTL123** is sufficiently flexible to make fitting to curved metal parts a relatively simple operation, after which the heat generated in service will increase its strength and stiffness. Alternatively, **FTL123** can be heat treated in an oven at a temperature of between 200 & 230°C for a period of not less than 60 minutes, either before or after fitting.

If supplied in the fully heat treated form (fully cured) it is known by the reference FTL124

FTL123 is not suitable for operating in oil.

✓ Application:

Automotive rear brake shoes
Industrial drum and band-brakes
Miscellaneous industrial devices
Crane and excavator brake and clutch linings.

✓ Bonding:

FTL123 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 200. Cast steels are not recommended

✓ Recommended Operation Range:

Pressure	
Dynamic	70 - 860 kN/m ²
Static	70 - 2410 kN/m ²
Max. rubbing speed	25 m/s
Max. continuous temperature	150 °C
Max. intermittent temperature	225 °C
Max. temperature	325 °C

✓ Availability

<u>Roll</u>	
Lengths:	10.0 metres up to & including 6.4 mm thick 7.5 metres 6.5 mm & above
Maximum width:	330mm
Thickness range:	3.0 to 10 mm

✓ Technical Data

Static Friction Coefficient	0.32
Dynamic Friction Coefficient	0.35
Density	1.9g/cm ³
Tensile Strength	2.62 N/mm ²
Compressive Strength	155 N/mm ²
Shear Strength	24 N/mm ²
Rivet Holding Capacity	148 N/mm ²
Thermal Conductivity	0.486 W/m°C

✓ Test Conditions

Temperature Sensitivity (see over)
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

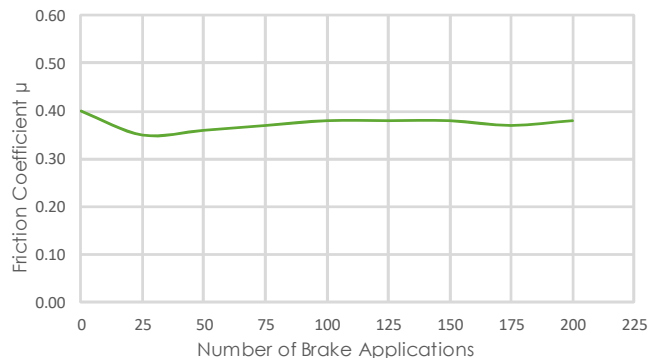
Pressure Sensitivity

Application speed 15 m/s
Average temperature 80°C

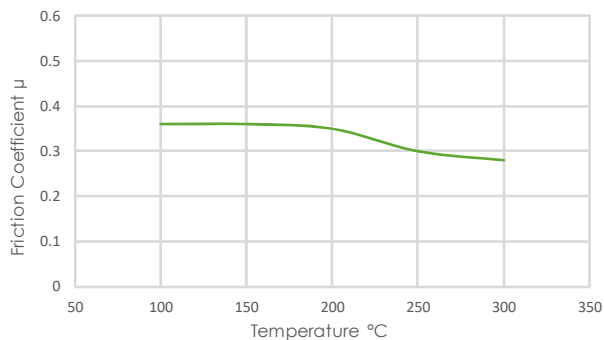
Speed Sensitivity

Clamping pressure 0.61 MN/m²
Average temperature 80°C

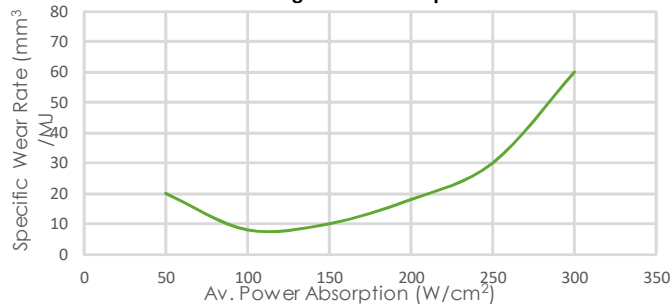
Initial Bedding Characteristics



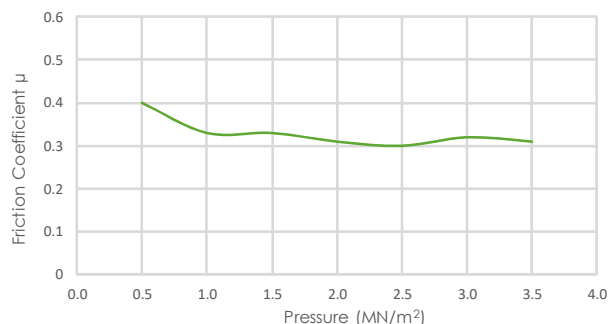
Temperature Sensitivity



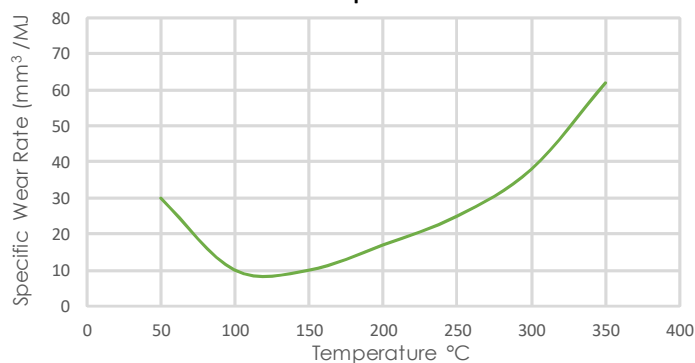
Wear vs Average Power Absorption



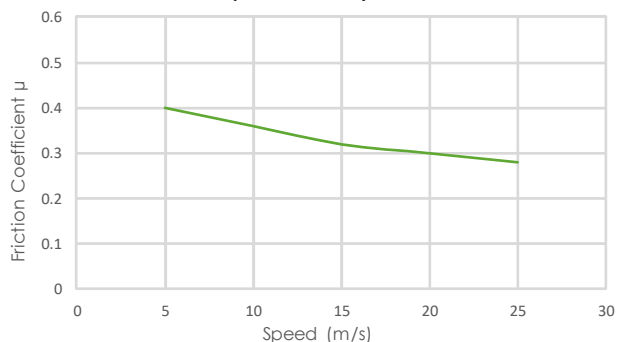
Pressure Sensitivity



Wear vs Temperature



Speed Sensitivity



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 Friction Technology Ltd, it is suggested that this material be thoroughly tested and its suitability for use be determined before final acceptance.