



## Material: FTL128

### General Description

FTL128 is a material which in many respects is similar to FTL122, although marginally higher in friction. It is rigid moulded, light brown in colour and contains a proportion of brass chipping to enhance its heat dissipation properties. This is a non asbestos material, based on a blend of synthetic fibres with a specially developed resin binder.

FTL128 combines a medium friction coefficient with good resistance to fade and a low rate of wear. It machines well and discs can readily be gear cut for use in multi-plate clutches.

This material is suitable for use either dry or in oil immersed applications

### Application

Clutches for marine gearboxes  
Steering clutches  
Clutches for machine tools, presses and other industrial plant and machinery.  
Miscellaneous industrial devices

### Bonding

FTL128 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.

### TECHNICAL DATA

#### Friction

for design purposes:			
Dry	Static (cold)		0.36
	Dynamic		0.38
In oil	Static (cold)		0.10
	Dynamic		0.09

### Recommended operating range

#### Pressure

Dynamic 70 - 700 kN/m<sup>2</sup> (10 - 100 lbf/in<sup>2</sup>)

Static 70 - 2410 kN/m<sup>2</sup> (10 - 350 bf/in<sup>2</sup>)

Max. rubbing speed

18 m/s (60 ft/s)

Max. continuous temperature

175 0C

Max. intermittent temperature

225 0C

temperature

300 0C

Max.

#### Size range

Sheets

750 x 750 x 3.2 to 19 thick

432 x 406 x 3.2 to 22 thick

Discs

Maximum diameter 495 x 22mm thick

#### Test Conditions

Temperature Sensitivity (see over)

Application speed 15 m/s

Clamping pressure 0.61 MN/m<sup>2</sup> (88.5 lbf/in<sup>2</sup>)

Temperatures ranging from 50 to 3500C in steps of 250C

#### Initial Bedding

Application speed 15 m/s

Clamping pressure 0.61 MN/m<sup>2</sup> (88.5 lbf/in<sup>2</sup>)

Average Temperature 1400C

#### Pressure Sensitivity

Application speed 15 m/s

Average temperature 800C

#### Speed Sensitivity

Clamping pressure 0.61 MN/m<sup>2</sup> (88.5 lbf/in<sup>2</sup>)

Average temperature 800C

#### Physical Properties

Density 1.78 g/cc

Ultimate tensile strength 32.0 MN/m<sup>2</sup> (4,641 lbf/in<sup>2</sup>)

Ultimate compressive strength 159 MN/m<sup>2</sup> (23,061 lbf/in<sup>2</sup>)

Ultimate shear strength 18.5 MNm<sup>2</sup> (2,683 lbf/in<sup>2</sup>)

Rivet holding capacity 151.6 MN/m<sup>2</sup> (22,000 lbf/in<sup>2</sup>)

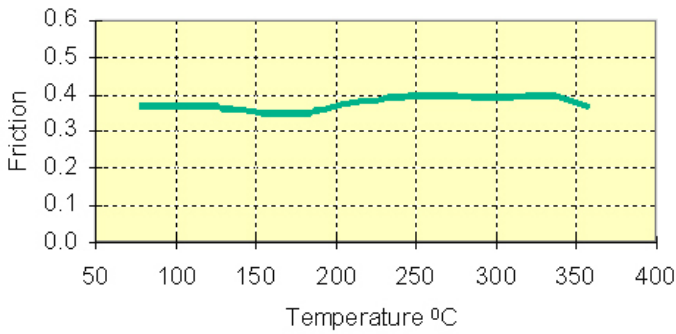
Thermal conductivity 0.488 W/m 0C

(All the physical properties shown above are all mean values)

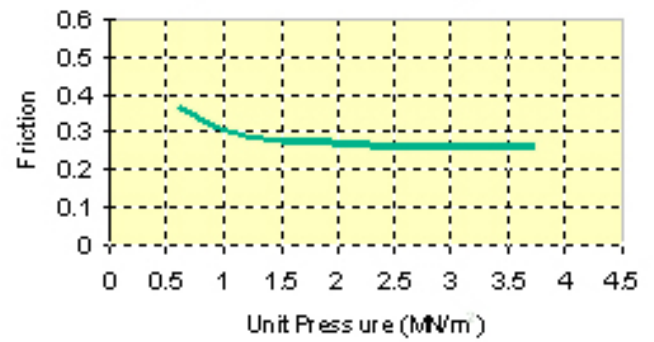


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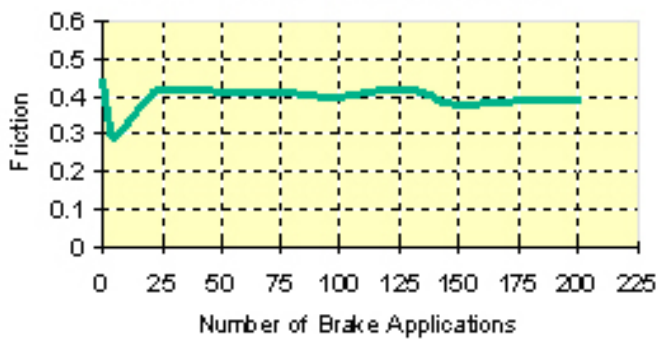
### Temperature Sensitivity



### Pressure Sensitivity



### Initial Bedding Characteristics



### Speed Sensitivity

