Material: FTL142

General Description

FTL142 is a rigid moulded, resin based material, containing non-asbestos mineral fibres in a random dispersion with selected friction modifiers. It has a medium coefficient of friction with a good resistance to fade and wear.
Both surfaces are ground during manufacture so that it can be either bonded or riveted to brake shoes and metal parts.

FTL142 is not suitable for operating in oil.

Application

Industrial drum and band-brakes
Industrial clutches
Miscellaneous industrial devices
Crane and excavator brake and clutch linings.

Bonding

FTL142 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.
TECHNICAL DATA

Friction

for design purposes:	Static (cold)	0.35
	Dynamic	0.40

Recommended operating range

Pressure

Dynamic	70 - 860 kN/m2	(10 - 125 lbf/in2)
Static	70 - 2410 kN/m2	(10 - 350 lbf/in2)

Max. rubbing speed	25 m/s (82 ft/s)
Max. continuous temperature	180 0C
Max. intermittent temperature	275 0C
Max. temperature	325 0C

Availability

Linings
Width 25 to 305 mm
Thickness 4.75 to 38.1 mm
Max. length 711 mm but not exceeding arc of 145°

Sheets

1016 mm long x 711 mm wide
Thickness range 4.75 to 38.1 mm

Test Conditions

Temperature Sensitivity (see over)
Application speed 15 m/s
Clamping pressure 0.61 MN/m2 (88.5 lbf/in2)
Temperatures ranging from 50 to 3500C in steps of 250C

Initial Bedding

Application speed 15 m/s
Clamping pressure 0.61 MN/m2 (88.5 lbf/in2)
Average Temperature 1400C

Pressure Sensitivity

Application speed 15 m/s
Average temperature 800C

Speed Sensitivity

Clamping pressure 0.61 MN/m2 (88.5 lbf/in2)
Average temperature 800C

Physical Properties

Density		1.85 g/cc
Hardness (Gogan)		23±5
Ultimate tensile strength	15.2 MN/m2	(2,200 lbf/in2)
Ultimate compressive strength	59.2 MN/m2	(8,600 lbf/in2)
Ultimate shear strength	29.6 MN/m2	(4300 lbf/in2)

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

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