

Friction Components and Systems Ltd

Product Data Sheet Material Type: D3923

General Description

D3923 is one of the Ferotec range of non-asbestos friction materials. 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. **D3923** has a marginally lower friction coefficient when compared with D3915 but has been developed to retain its excellent friction stability and wear resistant properties. This material is also ground on both surfaces during manufacture and is therefore suitable for bonding on either side. As supplied, **D3923** 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, **D3923** 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 D3924. **D3923** is not suitable for operating in oil.

Applications

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

Bonding

D3923 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.

Availability

- Roll
 - Length 5M
 - Width 20 to 330mm
 - Thickness range 3.2mm to 10.0mm
- Sheet size 710mm x 330mm x 3.2 up to 10.0mm thick
- Special shapes and discs on request

TECHNICAL DATA

Friction

μ for design purposes :

Recommended Operating Range

Pressure

Max. rubbing speed

Max. continuous temperature

Max. intermittent temperature

Max. temperature

Test Conditions

Application Speed

Clamping pressure

Average temperature

Average temperature

PHYSICAL PROPERTIES

Density

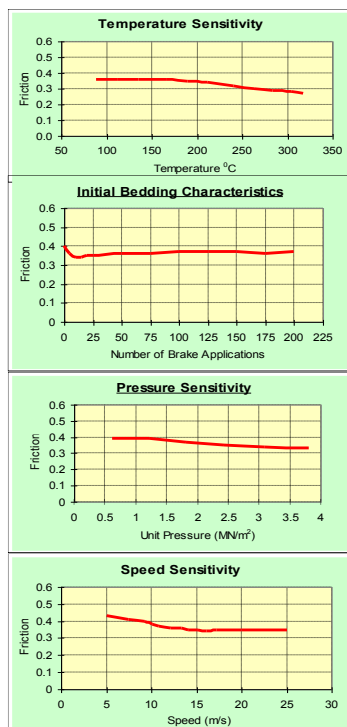
Ultimate tensile strength

Ultimate compressive strength

Ultimate shear strength

Hardness (Shore D)

(All physical properties shown above



Static (cold)

0.32

Dynamic

0.35

Dynamic

70-860 kN/m²

Static

70-2,410 kN/m²

25 m/s

150°C

225°C

325°C

15m/s

0.61 MN/m² (88.5 ibf/in²)

Initial Bedding 140°C

Pressure Sensitivity / Speed Sensitivity 80°C

1.98 g/cc

4.1.0 MN/m² (595 ibf/in²)

31.0 MN/m² (4,500 ibf/in²)

3.1 MN/m² (450 ibf/in²)

50 +/-5

are all mean values)

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

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