

# Friction Components and Systems Ltd

## Product Data Sheet

### Material Type: D3806

#### General Description

**D3806** is a closely woven, semi-flexible asbestos free friction material. It is based on yarn spun from a blend of glass and synthetic fibres together with a copper wire to enhance its' strength and heat dissipation properties. The impregnant has been specially developed to give it good frictional properties combined with a good degree of flexibility. It has a high coefficient of friction and performs well in wet and damp environments which makes it particularly suited for marine applications. To help during fitting to brake shoes and bands, it can be softened and made more pliable by warming in a bonding oven to between 150°C and 180°C for sufficient time for the heat to penetrate the fabric.

#### Applications

Industrial drum and band-brakes  
 Industrial clutches  
 Marine towing winches  
 Miscellaneous industrial devices

#### Bonding

**D3806** 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 10 Metres
  - Width Up to 510mm
  - Thickness range 3.2mm to 25mm
- Sheet size 1000mm x 660mm x 3.2mm to 16.0mm thick
- Linings and special shapes on request

#### TECHNICAL DATA

##### Friction

For design purposes:

##### Recommended Operating Range

Pressure

Max. rubbing speed

Max. continuous temperature

Max. intermittent temperature

Max. temperature

##### PHYSICAL PROPERTIES

Density

Ultimate tensile strength

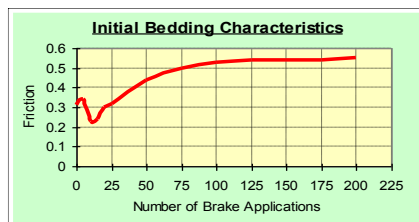
Ultimate compressive strength

Ultimate shear strength

Rivet holding capacity

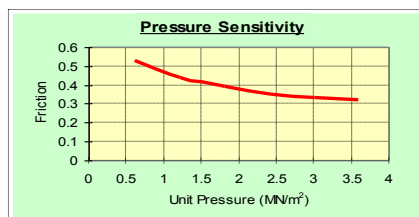
Thermal conductivity

(All physical properties shown



Static (cold) 0.45  
 Dynamic 0.42

Dynamic 70-860 kN/m<sup>2</sup>  
 Static 70-2,410 kN/m<sup>2</sup>



25 m/s  
 110°C  
 180°C  
 225°C

1.20 g/cc

24.0 MN/m<sup>2</sup>

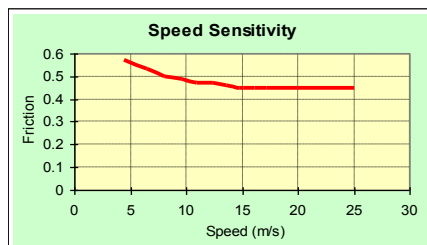
100.0 MN/m<sup>2</sup>

17.2 MN/m<sup>2</sup>

61.8 MN/m<sup>2</sup>

0.79 W/m °C

above 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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