

Friction Components and Systems Ltd

Product Data Sheet

Material Type: D3906

General Description

D3906 is a rigid moulded non-asbestos material, having a basis of inorganic fibres. It contains no metallic particles and is grey in colour. **D3906** is a low friction material with excellent wear resistance. It has been designed specifically for applications where a smooth and noise free operation is required. Although not affected physically by minor oil contamination this material is unsuitable for operating under oil-immersed conditions.

Applications

Industrial brakes
Industrial clutches
Miscellaneous industrial devices

Bonding

D3906 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

- Sheet size 900mm x 700mm x 3.2 up to 25.4mm thick
- Sheet size 660mm x 530mm x 3.2 up to 25.4mm thick
- Special shapes and discs on request

TECHNICAL DATA

Friction

μ for design purposes : Normal 0.27

Recommended Operating Range

Pressure	Dynamic	70-700 kN/m ² (10-100 ibf/in ²)
	Static	70-2,410 kN/m ² (10-350 ibf/in ²)
Max. rubbing speed		25 m/s
Max. continuous temperature		150°C
Max. intermittent temperature		180°C
Max. temperature		230°C

Test Conditions

Application Speed		15m/s
Clamping pressure		0.61 MN/m ² (88.5 ibf/in ²)
Average temperature	Initial Bedding	80°C
Average temperature	Pressure Sensitivity / Speed Sensitivity	80°C

PHYSICAL PROPERTIES

Density	1.80 g/cc
Ultimate tensile strength	24.0 MN/m ² (3,500 ibf/in ²)
Ultimate compressive strength	110.0 MN/m ² (16,000 ibf/in ²)
Ultimate shear strength	28.0 MN/m ² (4,000 ibf/in ²)
GoganHardness	Below 25Gc
Thermal Conductivity	2.22 W/m°C

(All physical properties shown 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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