

Friction Components and Systems Ltd

Product Data Sheet

Material Type: D3701

General Description

D3701 is a rigid moulded friction material which is mottled slate grey in appearance; it is a non-metallic asbestos free material having a random base of synthetic fibre and uses a specially developed resin which contributes to both the strength and the performance of the material.

D3701 has moderate mechanical strength together with a medium coefficient of friction combined with a low rate of wear; it machines well and facings can be gear cut on the inside or outside circumference depending on the application. The material can also be manufactured with moulded gear teeth, if the quantities required are sufficient to justify the tooling costs.

Application

Industrial clutches, drum and disc brakes, dry or oil immersed applications.

Band linings and segments for Automatic and Semi-Automatic transmissions.

Bonding

D3701 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.

N.B. Care should be taken to ensure that the temperature to which the material is to be subjected does not exceed the recommendations of the adhesive manufacturer.

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.

Size range

Particular requirements should be referred to Friction Dynamics Ltd. for confirmation that the proposed dimensions are within the manufacturing range.

TECHNICAL DATA

Friction

<i>μ</i> for design purposes:	Static (dry)	0.30
	Static (oil)	0.08
	Dynamic (dry)	0.35
	Dynamic (oil)	0.10

Recommended operating range

Pressure:		
Dynamic	70 - 700 KN/m ²	(10 - 100 lbf/in ²)
in oil	0.2 - 2.1 MN/m ²	(30 - 300 lbf/in ²)

Max. rubbing speed	5 m/s (82 ft/min)
Max. continuous temperature	150°C
Max. intermittent temperature	225°C
Max. temperature	250°C

Physical Properties

Density	1.62 g/cc
Gogan hardness	Below 25Gc
Ultimate compression strength	- 154 MN/m ² (22,336lbf/in ²)

Ultimate shear strength - 70 MN/m² (3,924 lbf/in²)

Ultimate tensile strength – 1.0 MN/m² (4,206 lbf/in²)

Thermal conductivity - 0.529 W/m °C

(All the 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.

MATERIAL DESCRIPTION					AVAILABILITY			
Non-Asbestos	Woven	Moulded	Metallic	Oil-Resistant	Roll	Sheet	Disc	Lining
*		*		*		*	*	*

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