# **Ferotec Friction Ltd**

## **D2011 Product Data Sheet**

#### **General Description**

**D2011** is a rigid moulded friction material having a non-asbestos base. It is grey in colour and incorporates a blend of selected friction modifying agents. This complex matrix of ingredients is consolidated with a specially developed binder system. **D2011** has a high friction coefficient, which is combined with an excellent resistance to fade and wear. Its high performance characteristics are particularly suited to severe duty applications. This material although not intended to operate in oil is not physically damaged by moderate oil contamination.

## **Applications**

• Industrial disc brakes

- Disc brakes for off-highway equipment
- Miscellaneous industrial devices

#### Bonding

**D2011** 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. 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.

#### Availability

Integrally moulded pads onto steel backplates Sheets 420 x 420mm up to 25.4mm thick Special shapes on request









## TECHNICAL DATA

Friction		
μ for design purposes :	Static (cold)	0.38
	Dynamic	0.42

## Recommended Operating Range

 Pressure : Dynamic
 0.35-5.2 MN/m<sup>2</sup>
 (50-750l bf/in<sup>2</sup>)

 Max. rubbing speed
 65 m/s

 Max. continuous temperature
 225°C

 Max. intermittent temperature
 400°C

 Max. temperature
 650°C

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## TEST CONDITIONS

 Temperature Sensitivity

 Application Speed
 20 m/s

 Clamping pressure 1.22MN/m²(177 lbf/in²)

 Temperatures ranging from 50 to 600°C

<u>Initial Bedding</u> Application speed 15 m/s Clamping pressure 1.22 MN/m<sup>2</sup> (177 lbf/in<sup>2</sup>) Average Temperature 150°C

<u>Pressure Sensitivity</u> Application speed 15 m/s Average temperature 80°C

<u>Speed Sensitivity</u> Clamping pressure 1.22MN/m<sup>2</sup> (177 lbf/in<sup>2</sup>) Average temperature 150°C

## PHYSICAL PROPERTIES

Density	3.00 g/cc
Ultimate compressive strength	60.31 MN/m² (8,750 lbf/in²)
Ultimate shear strength	9.8 MN/m² (1,421 lbf/in²)
Thermal Conductivity	1.4 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 FEROTEC FRICTION LIMITED, it is suggested that this material be thoroughly tested and its suitability for use be determined before final acceptance.

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