

Ferotec Friction, Inc.

150 Shellyland Road Rapho Business Park
PO Box 387 Mount Joy, PA 17552
(717) 492-9600 Fax: (717) 492-9601

PRODUCT DATA SHEET

FRICITION MATERIAL COMPOSITE: **D9050**

FOR OPERATION IN OIL

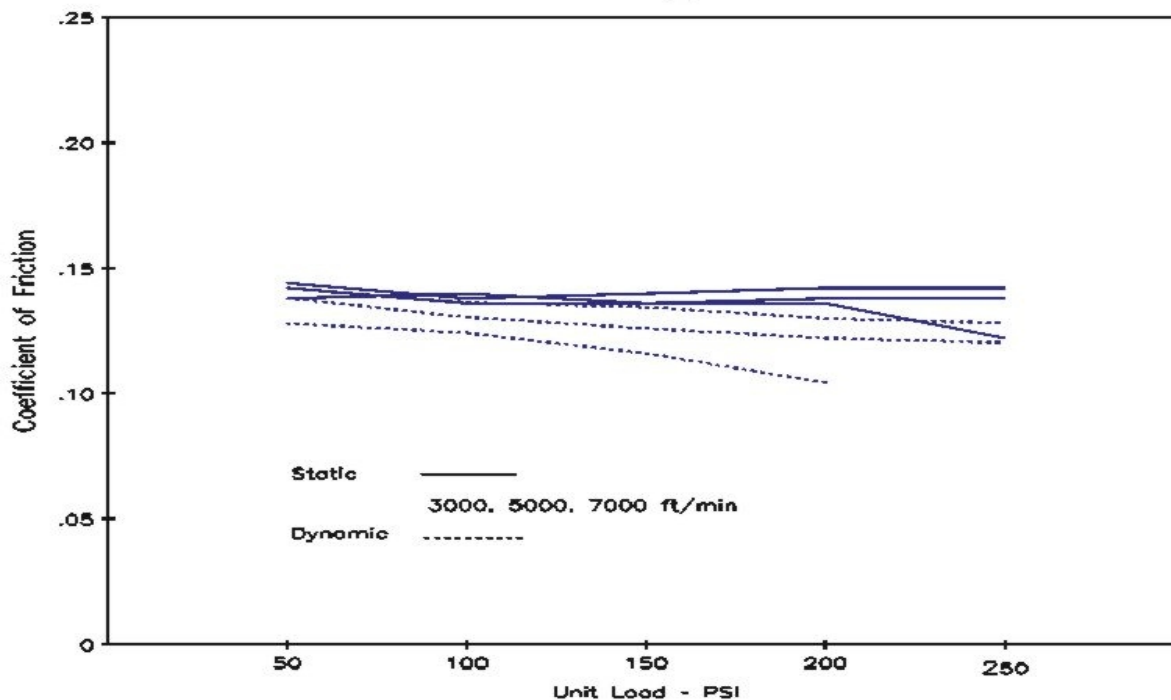
PRODUCT DESCRIPTION: **D9050** is a composite woven with carded yarns containing brass wire. The 3-axis construction, in combination with a very high temperature resistant resin, produces a dense, tough lining which exhibits excellent resistance to fade and compression under load. **D9050** meets the applicable requirements of **Fed Spec HH-L-361g**.

APPLICATION: **D9050** is suggested for light to heavy duty service where high static and dynamic friction levels are required in winches, cranes, hoists, etc. **D9050** may be mated to quality steel and cast iron, but is not recommended for use with stainless steel, copper, aluminum, or other soft metals.

PHYSICAL PROPERTIES			
Available Sizes (1)			
Width, inches			1 to 13
Thickness, inches			0.125 to 0.250
Length, feet			25
Specific Gravity (2)	SAE J380		≈ 1.50
Apparent Density, pounds/in ³			≈ 0.0542
Hardness, Shore D			55 ± 7 (semi-cure)
(1) Other sizes will be considered on individual basis. (2) Specific Gravity and Density vary with thickness			
MECHANICAL PROPERTIES			
		Semi -Cure	Full -Cure
Tensile Strength, psi	ASTM D638	4500	4500
Modulus x 10 ⁶ , psi		0.47	0.62
Elongation, %		1.80	1.40
Flexural Strength, psi	ASTM D790	Flexible	8400
Compression Strength, psi (3)	ASTM D695	≈ 500	1200 +
Shear Strength, psi	ASTM D732	NA	7200
(3) Thickness dependant			
THERMAL PROPERTIES			
Conductivity, BTU-in/hr/ft ² /°F	ASTM D2214		≈ 1.50
Specific Heat, Cal/gm/°C	ASTM C351		≈ 0.25

FRICTION PROPERTIES		
Coefficient of Friction, in oil		
Dynamic		.11 - .12
Static		.13 - .14
Recommended Operating Limits (4)		
Maximum Unit Pressure, psi		650
Maximum Rubbing Speed, ft/min		7000
PV Limit (psi x ft/min)		
Temperature, °F		
Minimum		-10
Maximum (Intermittent)		350
Maximum (Continuous)		250
(4) Recommended operating limits are commensurate with a reasonable amount of wear and uniform performance.		

Coefficient of Friction vs Unit Load
D9050 in Static Suppressed Oil



Static coefficient is derived on “lock-up” torque at each pressure level. Dynamic levels are derived from stop time for the 15th engagement at each pressure level.

- NA = not available
- N/A = not applicable
- NR = not recommended
- TBD = to be determined

The information and data supplied in this data sheet are believed to be accurate and reliable, and were obtained from standard laboratory tests. Since actual conditions of use are not within the control of **Ferotec Friction**, it is suggested that **D9050** be thoroughly tested and its suitability for use be determined before final acceptance.