Ferotec Friction, Inc.

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PRODUCT DATA SHEET
FRICTION MATERIAL COMPOSITE: **D9010-1**

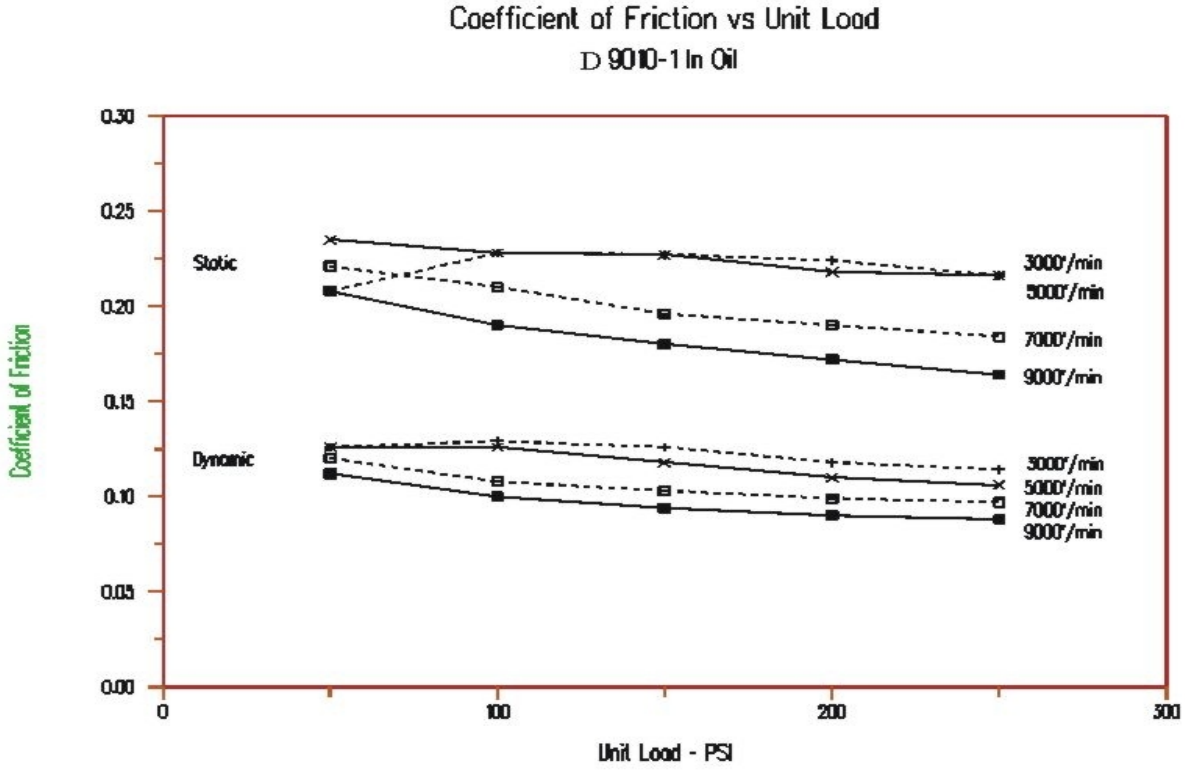
FOR OPERATION IN OIL

PRODUCT DESCRIPTION: D9010-1 is a composite woven lining made from finely carded yarns containing metallic wire. The 3-axis construction and resins used provide a dense, tough material which exhibits good resistance to heat and compression under load. **D9010-1** meets the applicable requirements for **CID A-A-52522.**

APPLICATION: D9010-1 is aptly suited for light to heavy duty service with quality steel & cast iron mating surfaces in winches, cranes, hoists, etc. **D9010-1** is not recommended for use with copper, aluminum, or other soft materials. It is oil and grease resistant and is suitable for light to medium duty operation in oil. See **Product Data Sheet "D9010-1 for Operation in Oil."**

PHYSICAL PROPERTIES		
Available Sizes (1)		
Width, inches		1 to 13
Thickness, inches		0.125 to 1.250
Length, feet		25
Specific Gravity (2)	SAE J380	≈ 1.40 - 1.60
Apparent Density, pounds/in^3		≈ 0.0578
(1) Special sizes available on request (2) Specific Gravity varies with thickness		
MECHANICAL PROPERTIES		
Tensile Strength, psi	ASTM D638	4500 (0.187 thick)
Modulus x 10^6, psi		0.19
Elongation, %		≈ 2.5
Flexural Strength, psi	ASTM D790	Flexible
Compression Strength, psi	ASTM D695	600 - 900 (thickness dependant)
Shear Strength, psi	ASTM D732	6300 (0.187 thick)
THERMAL PROPERTIES		
Conductivity, BTU-in/hr/ft^2/^{o}F	ASTM D2214	≈ 1.50
Specific Heat, Cal/gm/^{o}C	ASTM C351	0.25

FRICTION PROPERTIES		
Coefficient of Friction, in oil		
Dynamic		.08 - .12
Static		
Recommended Operating Limits (3)		
Maximum Unit Pressure, psi		
Maximum Rubbing Speed, ft/min		9000
Temperature, °F (oil sump)		
Minimum		-10
Maximum (Intermittent)		280
Maximum (Continuous)		180
(3) Recommended operating limits are commensurate with a reasonable amount of wear and uniform performance.		



Dynamic coefficient is based on stop time of 15th engagement @ each pressure/speed level. Static coefficient is based on "lock-up" torque @ each pressure/speed level.

Satisfactory performance in oil is dependent on many parameters: energy input rate, oil type and additive package, oil flow, groove pattern, sump temperature, opposing surface finish, surface speed, etc.

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