

# *Ferotec Friction, Inc.*

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## PRODUCT DATA SHEET FRICTION MATERIAL COMPOSITE: **D9709** FOR USE IN OIL

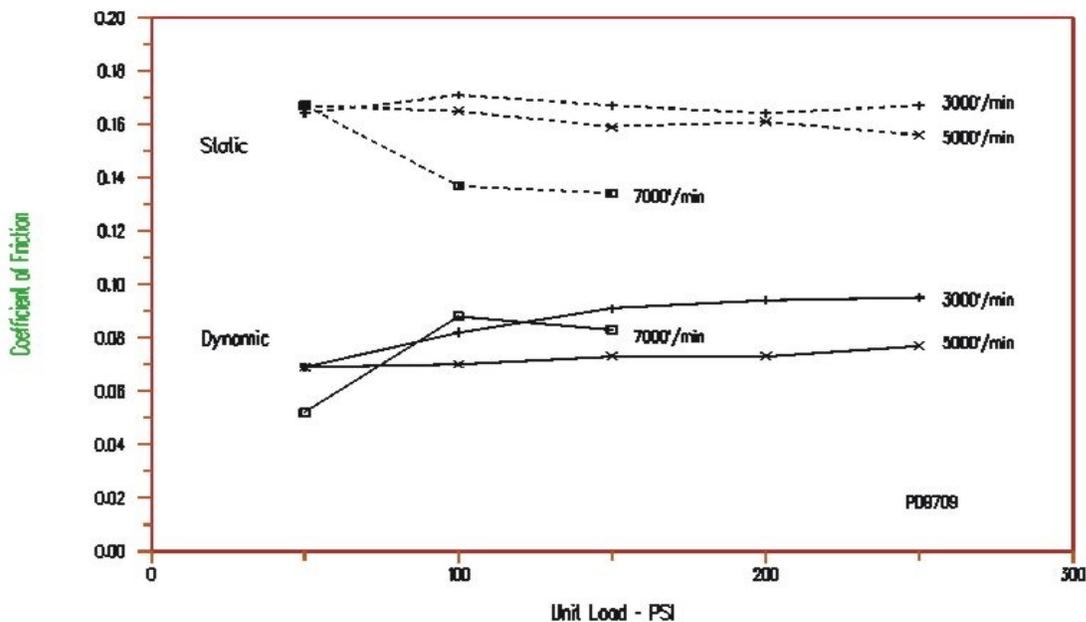
**PRODUCT DESCRIPTION:** D9709 is a rigid molded material supplied as finished parts. Although it is intended for use in oil, D9709 meets the applicable requirements of **Fed Spec HH-L-361G**.

**APPLICATION:** D9709 is recommended for light to medium duty use in band brake applications in oil only. It is not recommended for dry service.

PHYSICAL PROPERTIES		
Available Sizes (1)		.
Width, inches		28 Max.
Thickness, inches		0.250 to 0.500
Length, inches		36 Max.
Specific Gravity	SAE J380	1.50
Apparent Density, pounds/in <sup>3</sup>		0.054
Hardness, Gogan	SAE J379	24 ± 5
(1) Special sizes available on request		
MECHANICAL PROPERTIES		
Tensile Strength, psi	ASTM D638	5000
Modulus x 10 <sup>6</sup> , psi		1.40
Elongation, %		0.36
Flexural Strength, psi	ASTM D790	5700
Modulus x 10 <sup>6</sup> , psi		0.65
Compression Strength, psi	ASTM D695	15750
Shear Strength, psi	ASTM D732	4700
THERMAL PROPERTIES		
Conductivity, BTU-in/hr/ft <sup>2</sup> /°F	ASTM D2214	TBD
Specific Heat, Cal/gm/°C	ASTM C351	TBD

FRICTION PROPERTIES		
Coefficient of Friction, in oil		
Dynamic		.09
Static		.16
Recommended Operating Limits (2)		
Maximum Unit Pressure, psi		250
Maximum Rubbing Speed, ft/min		7000
Temperature, °F		
Minimum		-10
Maximum (Intermittent)		280
Maximum (Continuous)		180
(2) Recommended operating limits are commensurate with a reasonable amount of wear and uniform performance.		

**Coefficient of Friction vs Unit Load**  
D 9709 In Oil



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

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 D9709 be thoroughly tested and its suitability for use be determined before final acceptance.