

# *Ferotec Friction, Inc.*

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## PRODUCT DATA SHEET FRICTION MATERIAL COMPOSITE: **D8351** FOR USE IN OIL

**PRODUCT DESCRIPTION:** D8351 is a medium friction molded material available in slabs or flat shapes.

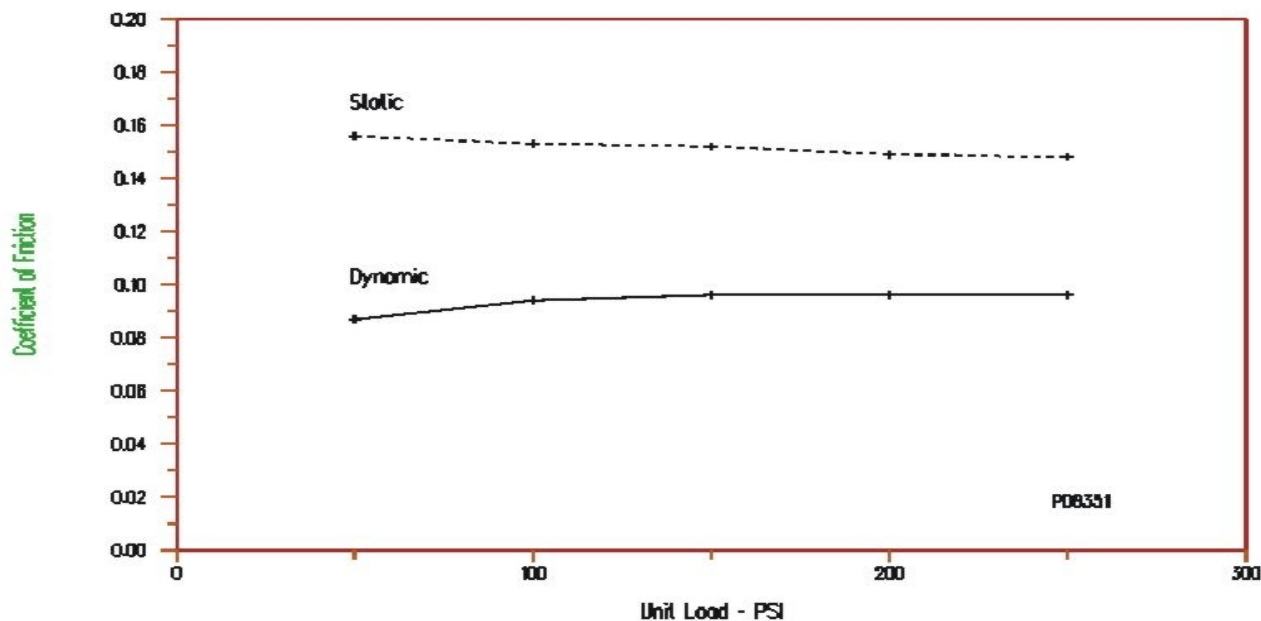
**APPLICATION:** D8351 exhibits sufficient strength, and is recommended for, light to medium duty gear tooth facings or notched drivers. D8351 may be used dry or in **light duty** applications in oil.

PHYSICAL PROPERTIES		
Available Sizes (1)		.
Width, inches		28 Max
Thickness, inches		0.187 to 1.500
Length, inches		36 Max.
Specific Gravity	SAE J380	1.80
Apparent Density, pounds/in <sup>3</sup>		0.065
Hardness, Gogan	SAE J379	17 ± 5
Water Absorption, %	24 Hours	0.20
Oil Absorption, %	24 Hours	0.15
(1) Special sizes available on request		
MECHANICAL PROPERTIES		
Tensile Strength, psi	ASTM D638	5200
Modulus x 10 <sup>6</sup> , psi		1.75
Elongation, %		0.54
Flexural Strength, psi	ASTM D790	9800
Modulus x 10 <sup>6</sup> , psi		1.44
Compression Strength, psi	ASTM D695	23500
Shear Strength, psi	ASTM D732	7900
THERMAL PROPERTIES		
Conductivity, BTU-in/hr/ft <sup>2</sup> /°F	ASTM D2214	2.66
Specific Heat, Cal/gm/°C	ASTM C351	TBD

FRICTION PROPERTIES		
Coefficient of Friction, in oil		
Dynamic		.09
Static		.15
Recommended Operating Limits (2)		
Maximum Unit Pressure, psi		250
Maximum Rubbing Speed, ft/min		3000
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

D8351 In Oil @ 3000 Feet per Minute



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 **D8351** be thoroughly tested and its suitability for use be determined before final acceptance.