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## **BRAKE and CLUTCH COMPOSITE:**

## **AFT1011**

**PRODUCT DESCRIPTION and APPLICATION: AFT1011** is a graphite-based brake and clutch friction composite, especially designed to run against copper, where it exhibits excellent coefficient stability and fade resistance. It is also recommended for use against quality cast iron and steel surfaces where low coefficients are required.

AFT-1011 may be machined using industry-accepted practices.

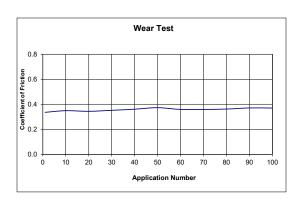
PHYSICAL PROPERTIES -		
Specific Gravity, typical	2.00	SAE – J380
Apparent Density, pounds / in²	0.0072	
Maximum Available Size -		
Width	38"	
Thickness, Maximum / Minimum	1.5"	
Length	38"	

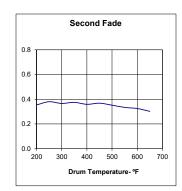
MECHANICAL and THERMAL PROPERTIES -		
Tensile Strength, psi	2350	ASTM - D638
Modulus x 10 <sup>6</sup>	1.5	
Elongation, %	0.15	ASTM - D790
Flexural Strength, psi	5200	
Modulus x 10 <sup>6</sup>	0.85	
Compression Strength, psi	13,400	ASTM - D695
Shear Strength, psi	4800	ASTM - D732
Thermal Conductivity, BTU-in/hr/ft²/°F	TBD	ASTM-D2214

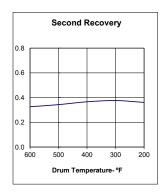
FRICTION PROPERTIES -		·
Coefficient of Friction -		SAE J661
Normal	0.32	
Hot	0.30	
Typical @ 400°F.	0.34	
Wear Rate, in <sup>3</sup> /hp-hr	0.0054	
Friction Code	EE	SAE J866
Suggested Operating Limits - **		
Maximum Pressure, psi	300	
Maximum Surface Speed, ft/min	5000	
Temperature, °F.		
Maximum, Intermittent	650°F.	
Maximum, Sustained	500°F.	

<sup>\*\*</sup> Suggested operating limits are consistent with uniform performance and acceptable wear rate

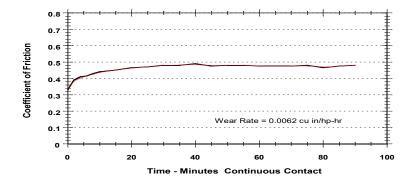
## **Coefficient of Friction**From SAE J661 Test Procedure







## Coefficient of Friction From FAST Test Procedure – Copper Rotor



The data presented herein was obtained from industry accepted standards. **Champion Friction Technologies Inc.** provides the information in good faith but make no representation as to its completeness or accuracy. The information is intended only as a guide, and independent judgement must be exercised in determining suitability of the material for a particular purpose.