



RIGID FRICTION MATERIALS

Material Description

RF-34	Medium friction level material with an excellent rate of wear and low abrasion. Contains zinc particles to improve its smooth, quiet and effective performance.
RF-38	Medium friction level material. Combines synthetic fibers, non-hazardous friction modifiers, zinc and brass particles and high temperature resins.
RF-41	Medium friction level material similar to RF-38, but containing no rubber particles.
RF-42	Medium friction level material containing synthetic fiber, friction modifiers and high temperature resins. Similar to RF-38, but it has no metal particles.
RF-52	High friction level and quality material compounded for severe duty. Material features excellent fade resistance and long wear.
RF-53	High friction level material.
RF-60	Very high friction level material compounded to give extremely consistent friction.
725AF	Low friction level material with a high graphite content.

Please contact The Rowland Company for more information on friction materials not listed above.

FRICITION PROPERTIES RF34

Coefficient of Friction (SAE J661)

Normal .34

Hot .34

See Note 1

Wear Rate, by weight (SAE J661)

.010 max.

Friction Code

EE

Recommended Operating Limits

Max. Rubbing Speed

7500 fpm

See Note 2

Max. Drum Temp.

600°F

°F for Constant Operation

See Note 2

Max. Pressure

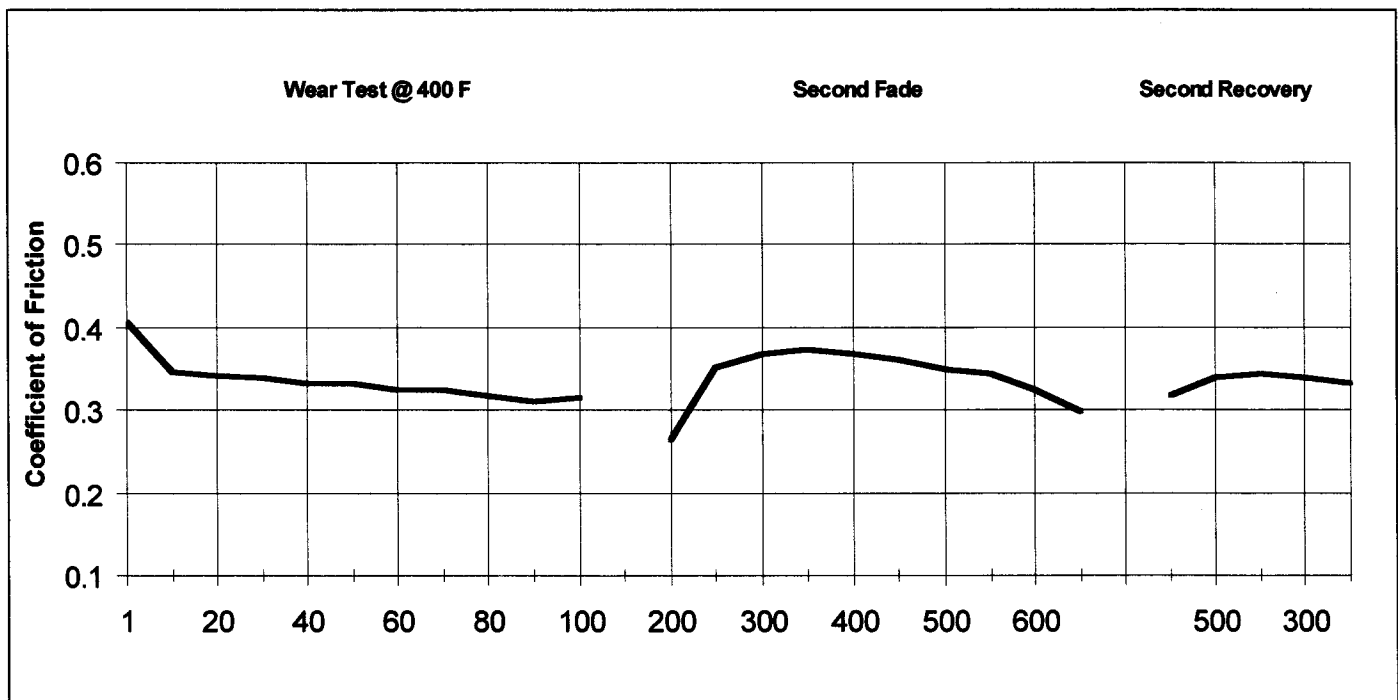
150psi

See Note 2

Note 1. – Friction values shown are for guide purposes only since values deviate with changes in temperature, pressure and speed. Practical design should include a 25 to 50 percent safety factor.

Note 2. – Rubbing speed, drum temperature, and pressure are directly related. Changing any one value will change the others. The values shown represent typical conditions, but are not the ultimate limits of the material.

SAE J661a Test Curves



Product Data Sheet

Brake Lining Material: **RF38**

PRODUCT DESCRIPTION: RF38 is a non-asbestos medium friction, rigid molded product. RF38 combines synthetic fibers, non-hazardous friction modifiers, zinc and brass particles, and high temperature resins. The result is a homogenous, dense, rigid, high strength product with properties suitable for use in virtually any application, including the most severe.

APPLICATION: RF38 has exceptional dimensional stability, allowing it to be molded into many intricate internal, external, and customer specified shapes. RF38 and the other dry mix molded formulas are preferred over flexible products whenever flexibility is not required, and should be used for greatly increased life and superior fade resistance in heavy duty applications. RF38 is designed for industrial use and far surpasses inexpensive truck block formulas. It has been the standard in the industry since 1978, and continues to be the target all competition shoots at but cannot equal.

PHYSICAL PROPERTIES

Tolerance and Size Data

Blocks – Thickness 1/8" to 2 1/8" - To 3/8"	+ .000/- .020"
- Over 3/8"	+ .000/- .030"
- Width - To 6"	+/- 1/32"
- 6" to 8"	+ 1/32"/- 1/16"
- Over 8"	+ 1/32/- 1/8"
Flat Sheet Size and Thickness - 20" X 20"	up to 1 1/8"
- 30" X 30"	up to 1 1/2"
- 12 1/2" X 15"	up to 2 1/8"
To 3/8" Thick	+ .000/- .020"
Over 3/8" Thk.	+ .000/- .030"
Facing – Thickness - To 3/8"	+ .000/- .020"
- Over 3/8"	+ .000/- .030"
OD - To 12"	+/- 1/32"
- Over 12"	+/- 1/16"
ID - To 12"	+ 1/16"/- .000
- Over 12"	+ 1/8"/- .000

MECHANICAL PROPERTIES

Specific Gravity (SAE J380)	2.0-2.25
Gogan Hardness (SAE J379A)	20-40
Tensile Strength, psi (ASTM D638)	2800psi min.
Modulus of Rupture (ASTM-D790)	3200psi min.

FRICITION PROPERTIES RF38

Coefficient of Friction (SAE J661)

Normal	.43
Hot	.42
See Note 1	

Wear Rate, by weight (SAE J661)

.014

Friction Code

FF

Recommended Operating Limits

Max. Rubbing Speed

7500 fpm

See Note 2

Max. Drum Temp.

600°F

°F for Constant Operation

See Note 2.

Max. Pressure

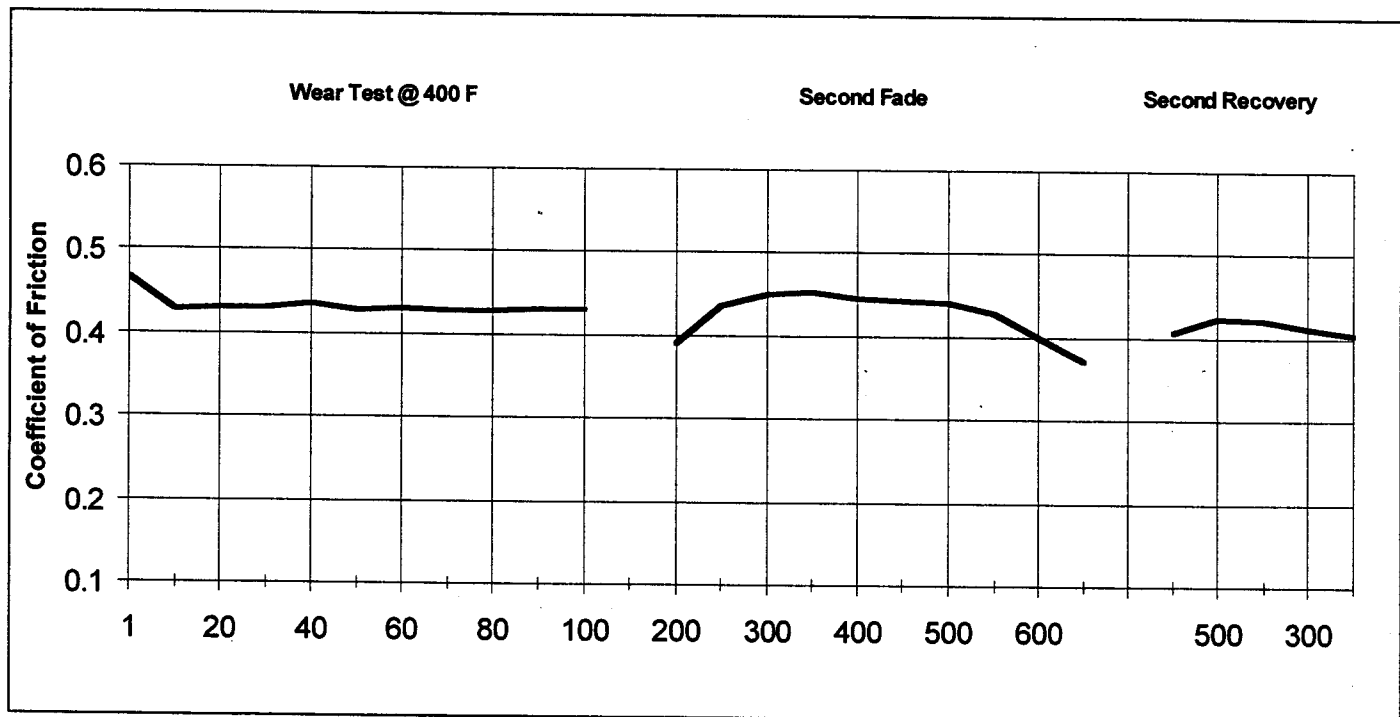
150psi

See Note 2

Note 1. – Friction values shown are for guide purposes only since values deviate with changes in temperature, pressure and speed. Practical design should include a 25 to 50 percent safety factor.

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SAE J661a Test Curves



FRICION PROPERTIES RF41

Coefficient of Friction (SAE J661)

Normal	.46
Hot	.45
See Note 1	

Wear Rate, by weight (SAE J661)

.020

Friction Code

FF

Recommended Operating Limits

Max. Rubbing Speed

7500 fpm

See Note 2

Max. Drum Temp.

600°F

°F for Constant Operation

See Note 2

Max. Pressure

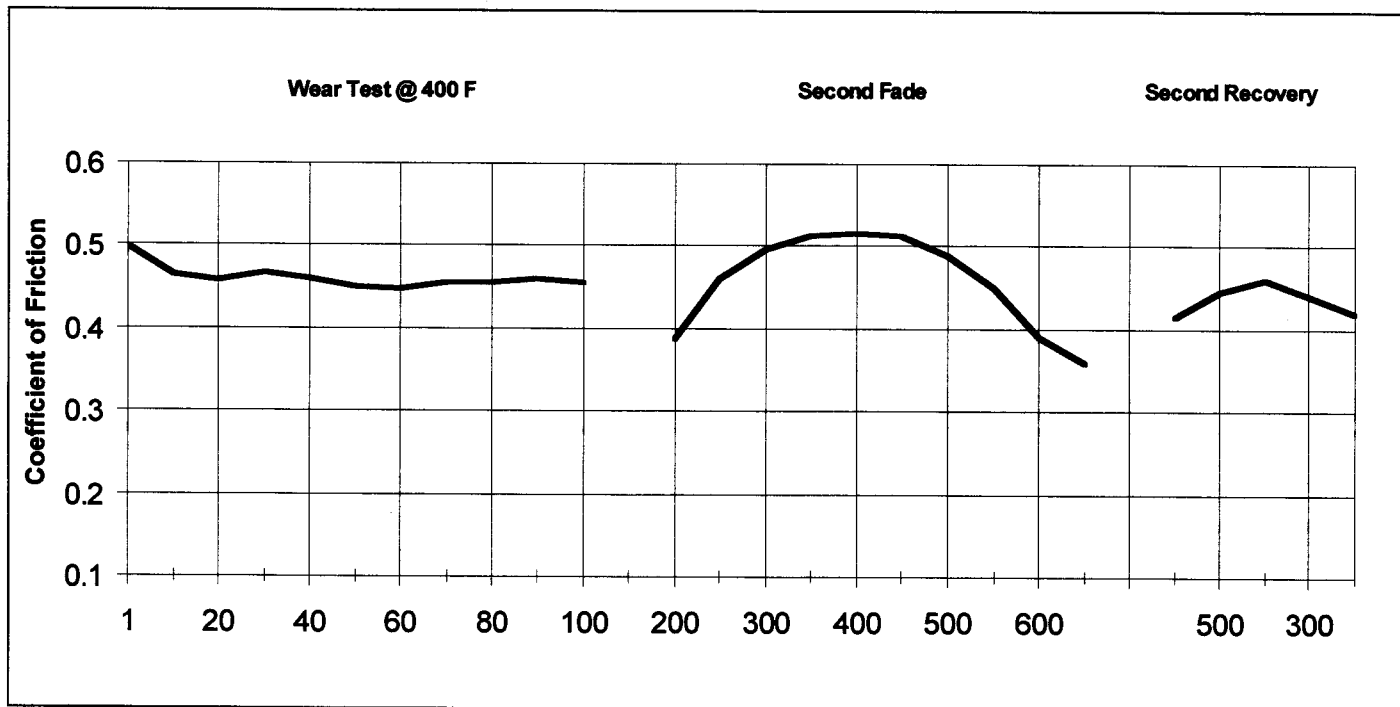
150psi

See Note 2

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SAE J661a Test Curves



FRICION PROPERTIES RF42

Coefficient of Friction (SAE J661)

Normal	.43
Hot	.41
See Note 1	

Wear Rate, by weight (SAE J661)

.018 max.

Friction Code

FF

Recommended Operating Limits

Max. Rubbing Speed 7500 fpm

See Note 2

Max. Drum Temp. 600°F

°F for Constant Operation

See Note 2

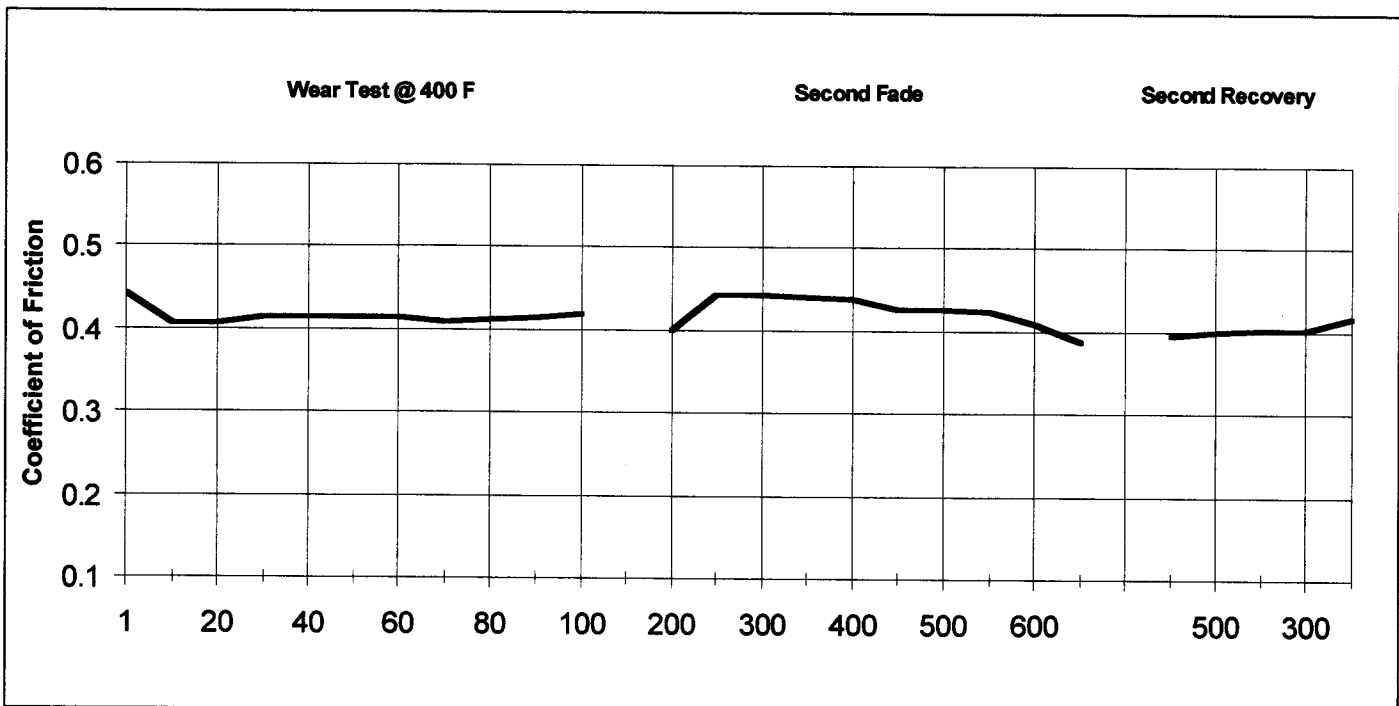
Max. Pressure 150psi

See Note 2

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SAE J661a Test Curves



FRICITION PROPERTIES RF52

Coefficient of Friction (SAE J661)

Normal .58

Hot .55

See Note 1

Wear Rate, by weight (SAE J661) .019

Friction Code GG

Recommended Operating Limits

Max. Rubbing Speed 7500 fpm

See Note 2

Max. Drum Temp. 600°F

°F for Constant Operation

See Note 2

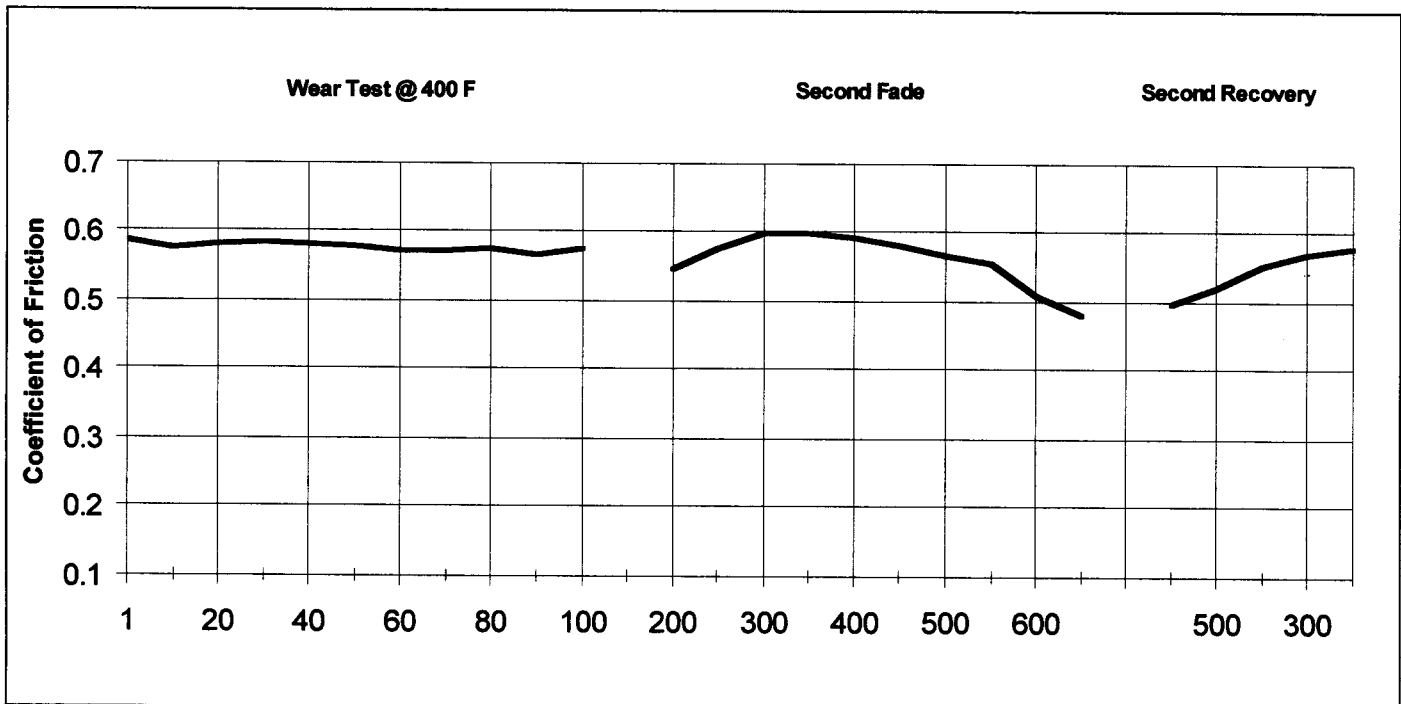
Max. Pressure 150psi

See Note 2

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SAE J661a Test Curves



FRICION PROPERTIES RF53

Coefficient of Friction (SAE J661)

Normal	.53
Hot	.50
See Note 1	

Wear Rate, by weight (SAE J661)

.022 max.

Friction Code

GG

Recommended Operating Limits

Max. Rubbing Speed	7500 fpm
See Note 2	

Max. Drum Temp.	600°F
°F for Constant Operation	

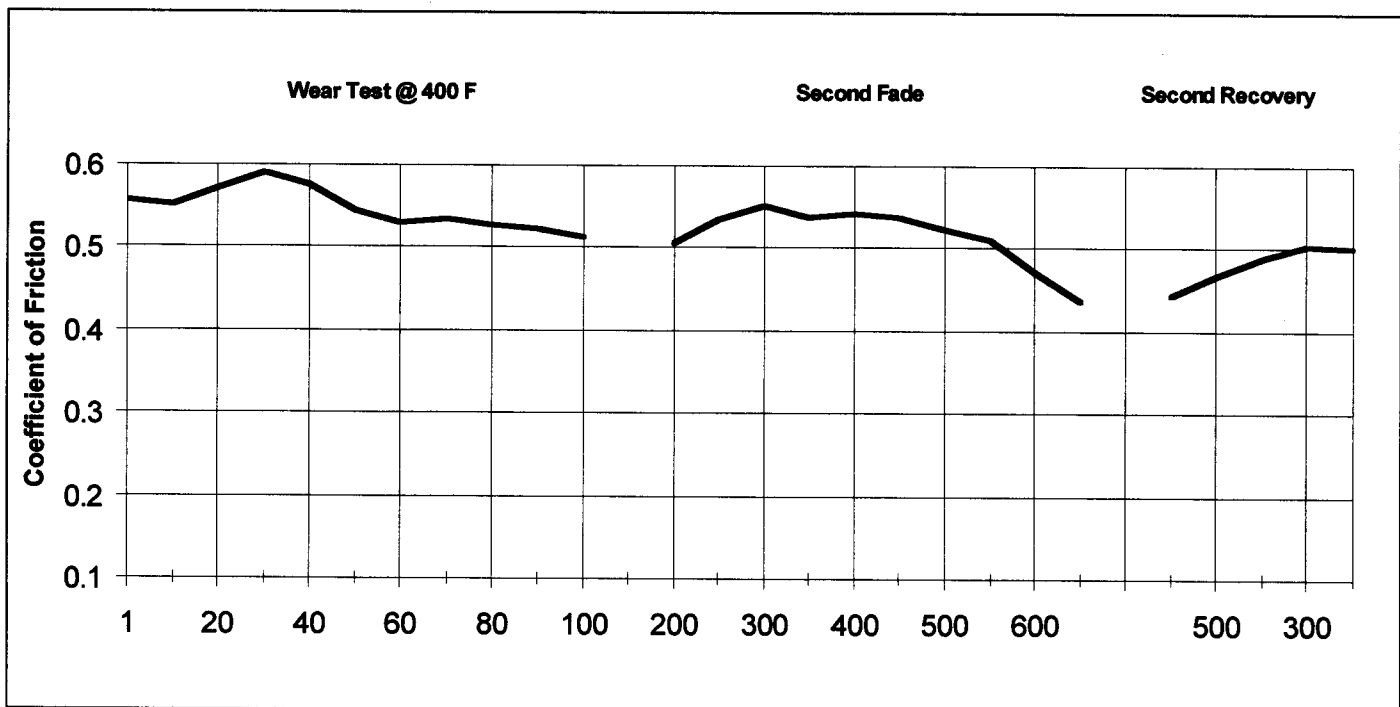
See Note 2

Max. Pressure	150psi
See Note 2	

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SAE J661a Test Curves



FRICITION PROPERTIES RF60

Coefficient of Friction (SAE J661)

Normal .60

Hot .60

See Note 1

Wear Rate, by weight (SAE J661)

.035 max.

Friction Code

HH

Recommended Operating Limits

Max. Rubbing Speed

7500 fpm

See Note 2

Max. Drum Temp.

600°F

°F for Constant Operation

See Note 2

Max. Pressure

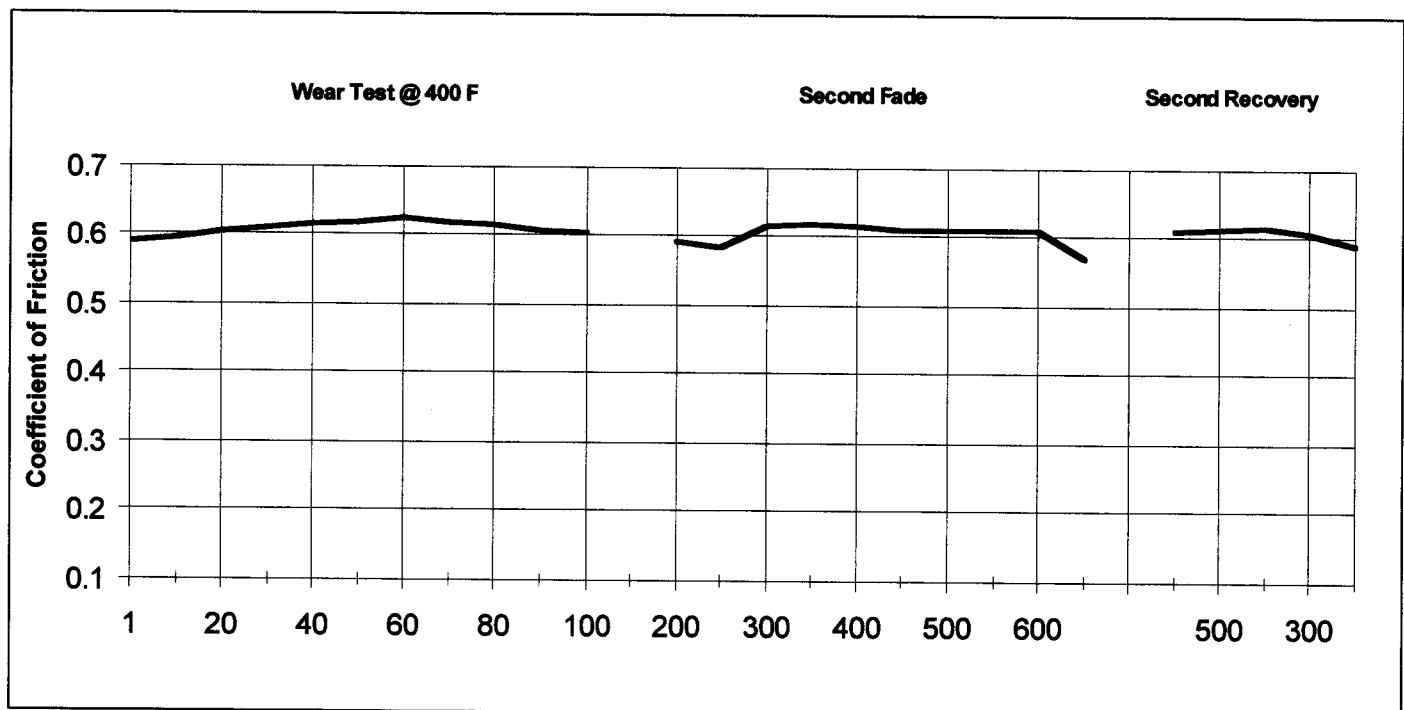
150psi

See Note 2

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Note 2. – Rubbing speed, drum temperature, and pressure are directly related. Changing any one value will change the others. The values shown represent typical conditions, but are not the ultimate limits of the material.

SAE J661a Test Curves



Product Data Sheet

Brake Lining Material: 725AF (EELSLIP)

PRODUCT DESCRIPTION: 725AF (EELSLIP) is a low coefficient of friction material featuring a high graphite content.

APPLICATION: 725AF (EELSLIP) material is designed for a wide range of applications. Primary applications include pipe saddles, paper mill seal strips and silencers, thrust washers, and glass and aluminum plant drop plates. Other typical applications include overload clutches and slip clutches.

PHYSICAL PROPERTIES

Tolerance and Size Data

Flat Sheets – Thickness: 1/32" to 1/2"	+/- .010"
Sheet Size:	20" X 60"
	30" X 30"
Facings – Thickness: 1/32" to 1/2"	+/- .010"
OD to 12"	+/- 1/32"
OD over 12"	+/- 1/16"
ID to 12"	+1/16", -.000
ID over 12"	+1/8", -.000

Specific Gravity (SAE J380)	1.92
Shore D Hardness (ASTM D2240-68)	80

MECHANICAL PROPERTIES

Tensile Strength, psi (ASTM D638)	4500psi min.
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FRICITION PROPERTIES 725AF Uncured

Coefficient of Friction (SAE J661)	
Normal	.27
Hot	.24
See Note 1	
Wear Rate, by weight (SAE J661)	.007
Friction Code	ED
Recommended Operating Limits	
Max. Rubbing Speed	2500 fpm
See Note 2	
Max. Drum Temp.	350°F
°F for Constant Operation	
See Note 2	
Max. Pressure	100psi
See Note 2	

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Note 2. – Rubbing speed, drum temperature, and pressure are directly related. Changing any one value will change the others. The values shown represent typical conditions, but are not the ultimate limits of the material.

SAE J661a Test Curves

