

## Style 5500

### MATERIAL PROPERTIES\*:

<b>Color:</b>	Gray
<b>Composition:</b>	Inorganic fibers with a nitrile binder
<b>Fluid Services</b> (see chemical resistance guide):	Saturated steam <sup>2</sup> , most refrigerants, water, oils, gasoline & aliphatic hydrocarbons

### Temperature<sup>1</sup>, °F (°C)

Minimum:	-100 (-73)
Continuous Max:	+550 (+288)
Maximum:	+800 (+427)

### Pressure<sup>1</sup>, psig (bar):

Maximum:	1200 (83)
Minimum:	Full Vacuum
Ideal Operating Limit:	750 (52)

### P x T (max.)<sup>1</sup>, psig x °F (bar x °C):

1/32 and 1/16":	400,000 (14,000)
1/8"	275,000 (9,600)

**Meets Specifications:** ABS (American Bureau of Shipping) and Fire Safe

### TYPICAL PHYSICAL PROPERTIES\*:

<b>ASTM F36</b>	<b>Compressibility</b> , average, %:	10	
<b>ASTM F36</b>	<b>Recovery</b> , %:	50	
<b>ASTM F38</b>	<b>Creep Relaxation</b> , %:	15	
<b>ASTM F152</b>	<b>Tensile</b> , Across Grain, psi (N/mm <sup>2</sup> ):	1500 (10)	
<b>ASTM F1315</b>	<b>Density</b> , lbs./ft. <sup>3</sup> (grams/cm <sup>3</sup> ):	100 (1.60)	
<b>ASTM F433</b>	<b>Thermal Conductivity (K)</b> , W/m <sup>2</sup> K (Btu·in./hr·ft. <sup>2</sup> ·°F):	0.43-0.53 (3.00-3.65)	
<b>ASTM D149</b>	<b>Dielectric Properties</b> , range, volts/mil.		
	Sample conditioning	<u>1/16"</u>	<u>1/8"</u>
	3 hours at 250°F	284	245
	96 hours at 100% Relative Humidity:	-	-
<b>ASTM F586</b>	<b>Design Factors</b>	<u>1/16" &amp; Under</u>	<u>1/8"</u>
	"m" factor:	6.6	6.6
	"y" factor, psi (N/mm <sup>2</sup> ):	2600 (17.9)	3300 (22.8)
<b>ROTT</b>	<b>Gasket Constants</b> , 1/16":	G <sub>b</sub> =1,247	a=0.249      G <sub>s</sub> =11.0

### SEALING CHARACTERISTICS\*

	ASTM F37B – Fuel A	ASTM F37B - Nitrogen	DIN 3535 – Nitrogen
<b>Gasket Load</b> , psi (N/mm <sup>2</sup> ):	500 (3.5)	3000 (20.7)	4640 (32)
<b>Internal Pressure</b> , psig (bar):	9.8 (0.7)	30 (2)	580 (40)
<b>Leakage</b>	<b>0.3 ml/hr.</b>	<b>1.0 ml/hr.</b>	<b>0.05 cc/min</b>

#### Notes:

\* This is a general guide and should not be the sole means of selecting or rejecting this material. ASTM test results in accordance with ASTM F-104; properties

<sup>1</sup> Based on ANSI RF flanges at our preferred torque. When approaching maximum pressure, continuous operating temperature, minimum temperature or 50% of maximum P x T, consult Garlock Applications Engineering. Minimum temperature rating is conservative.

<sup>2</sup> Minimum recommended assembly stress = 4,800psi. Preferred assembly stress = 6,000-10,000psi. Gasket thickness of 1/16" strongly preferred. Retorque the bolts/studs prior to pressurizing the assembly. For saturated steam above 150psig or superheated steam, consult Garlock Engineering.

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