

## Style 9900

### MATERIAL PROPERTIES\*:

<b>Color:</b>	Mahogany
<b>Composition:</b>	Graphite fibers with a nitrile binder
<b>Fluid Services</b> (see chemical resistance guide):	Saturated steam <sup>2</sup> , water, oils, inert gases, aliphatic hydrocarbons & gasoline
<b>Temperature<sup>1</sup>, °F (°C)</b>	
Minimum:	-100 (-75)
Continuous Max:	+650 (+343)
Maximum:	+1000 (+537)
<b>Pressure<sup>1</sup>, Maximum, psig (bar):</b>	2000 (138)
<b>P x T (max.)<sup>1</sup>, psig x °F (bar x °C):</b>	
1/32 and 1/16":	700,000 (25,000)
1/8"	350,000 (12,000)
<b>Meets Specifications:</b>	ABS (American Bureau of Shipping), STR 508(5) Rev. 2 and Fire Safe

### TYPICAL PHYSICAL PROPERTIES\*:

<b>ASTM F36</b>	<b>Compressibility</b> , average, %:	9	
<b>ASTM F36</b>	<b>Recovery</b> , %:	55	
<b>ASTM F38</b>	<b>Creep Relaxation</b> , %:	9	
<b>ASTM F152</b>	<b>Tensile</b> , Across Grain, psi (N/mm <sup>2</sup> ):	1800 (12)	
<b>ASTM F1315</b>	<b>Density</b> , lbs./ft. <sup>3</sup> (grams/cm <sup>3</sup> ):	110 (1.76)	
<b>ASTM F433</b>	<b>Thermal Conductivity (K)</b> , W/m <sup>2</sup> K (Btu.in./hr.ft. <sup>2</sup> .°F):	0.87 (6.0)	
<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	<2	-
	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:	4.5	5
	"y" factor, psi (N/mm <sup>2</sup> ):	4100 (28.3)	4100 (28.3)
<b>ROTT</b>	<b>Gasket Constants, 1/16"</b> :	Gb=2,322	a=0.133 Gs=18.0

### 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>0.6 ml/hr.</b>	<b>0.015 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 PxT, 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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