

## Technical Data Sheet

### MATERIAL PROPERTIES\*:

**Colour:** Black  
**Composition:** Carbon Fibres with a NBR binder  
**Fluid Services:** (See Chem. Res. Guide) Saturated steam<sup>2</sup>, water, oils, gasoline, aliphatic hydrocarbons and most refrigerants



### Temperature<sup>1</sup>, °F (°C)

Minimum: -100 (-75)  
 Continuous Maximum: +650 (+343)  
 Maximum: +900 (+482)

Pressure<sup>1</sup>, Maximum, psig (bar): 2000 (138)

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

1/32 and 1/16": 700,000 (25,000)  
 1/8" 350,000 (12,000)

Meets Specifications: Fire Safe

### TYPICAL PHYSICAL PROPERTIES\*:

ASTM F36	Compressibility, average, %:	8
ASTM F36	Recovery, %:	55
ASTM F38	Creep Relaxation, %:	15
ASTM D1708	Tensile, Across Grain, psi (N/mm <sup>2</sup> ):	1800 (12)
ASTM F1315	Density lbs/ft <sup>3</sup> (grams/cm <sup>3</sup> ):	105 (1.68)
ASTM F433	Thermal Conductivity (K), W/m <sup>2</sup> K (Btu in/hr ft <sup>2</sup> °F):	0.50-0.60 (3.50-4.15)
ASTM D149	Dielectric Properties, range, volts/mil.	
	Sample conditioning	1/16" 1/8"
	3 hours at 250° F	<2 -
	96 hours at 100% Relative Humidity:	- -
ASTM F586	Design Factors	1/16" & Under 1/8"
	"m" factor:	6.5 8
	"y" factor, psi (N/mm <sup>2</sup> ):	2550 (17.6) 2800 (19.3)
ROTT	Gasket Constants, 1/16":	Gb=1,591 a=0.239 Gs=9.3

	ASTM F37B – Fuel A	ASTM F37B – Nitrogen	DIN 3535 – Nitrogen
Gasket Load, psi (N/mm <sup>2</sup> ):	500 (3.5)	3000 (20.7)	4640 (32)
Internal Pressure, psig (bar):	9.8 (0.7)	30 (2)	580 (40)
Leakage	0.30 ml/hr.	0.6 ml/hr	0.015 cc/Min

### SEALING CHARACTERISTICS\*

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. 1 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. 2 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 us.

**Asbestos Free**



Certificate Number: 14352  
ISO 9001



Care should be taken in selecting the most suitable quality for each application. Advice is available, but final responsibility remains with the customer.

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