GRAPH-LOCK® Style 3125TC

MATERIAL PROPERTIES*:

Color:	Black
Composition:	Graphite with a 316SS tang insert Purified natural graphite flake that have been acid washed, expanded under heat, and then compressed into sheets with a min. graphite content of 98%. The graphite is mechanically bonded to a 0.004" thick 316 stainless steel tang insert (53 tangs/sq in.). Product contains corrosion inhibitor.
Temperature[1], °F (°C)	
Minimum:	-450 (-268)
Continuous Max:	+850 (+454)
Pressure[1], psig (bar):	
Maximum:	2000 (138)
Minimum:	Full Vacuum
Ideal Operating Limit:	750 (52)
P x T (max.)[1], psig x °F (bar x °C):	
1/32 and 1/16":	700,000 (25,000)
1/8"	350,000 (12,000)
Meets Specifications:	ABS (American Bureau of Shipping), and Fire Safe

TYPICAL PHYSICAL PROPERTIES*:

ASTM F36	**Compressibility**, average, %:	35		
ASTM F36	**Recovery**, %:	>20		
ASTM F38	**Creep Relaxation,** %:	10		
ASTM F152	**Tensile**, Across Grain, psi (N/mm^2):	3500 (24)		
DIN 52913	**Load Retention**, %:	90		
ASTM F1315	**Density**, lbs./ft.^{3} (grams/cm^3):	70 (1.12)		
ASTM F586	**Design Factors**	1/16"		1/8"
	"m" factor:	2.6		6.0
	"y" factor, psi (N/mm^2):	2500 (17.2)		3000 (20.7)
ROTT	**Gasket Constants**, 1/16":	Gb=1400	a-0.324	Gs=0.01

SEALING CHARACTERISTICS*

	ASTM F37B – Fuel A	**ASTM F37B - Nitrogen**	**DIN 3535 – Nitrogen**
Gasket Load, psi (N/mm2):	500 (3.5)	3000 (20.7)	4640 (32)
Internal Pressure, psig (bar):	9.8 (0.7)	30 (2)	580 (40)
Leakage	**2.0 ml/hr.**	**1.5 ml/hr.**	**1.0 cc/min**

CHEMICAL IMPURITY DATA

Chemical Limits			
Leachable Levels Max., ppm	**ppm**	**Total Chemical Limits**, Max., ppm	**ppm**
Chlorides:	<50	**Total Chlorides:**	200
Fluorides:	100	**Total Sulfur:**	1400
Sulfur:	200		

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

[1] 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.

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GARLOCK
an EnPro Industries family of companies
1666 Division Street
Palmyra, NY 14522

Tel: 1-877-GARLOCK / 315.597.4811
Fax: 800.543.0598 / 315.597.3216
www.garlock.com