Garlock
SEALING TECHNOLOGIES®
an EnPro Industries company

Garlock Graph-Lock® 3125SS-HT

MATERIAL PROPERTIES*

Composition:	Graphite with a 0.002" 316SS foil insert
	-Laminated layers of 0.015" purified natural graphite flake that have been
	acid washed, expanded under heat, and then compressed into sheets with
	a minimum graphite content of 98%. This sheet contains a 0.002" thick
	316 stainless steel foil insert, bonded with a proprietary adhesive. This
	adhesive comprises less than 1% of the total laminated weight.
Color:	Black
Temperature[2], °F (°C)	
Minimum:	-400 (-240)
Continuous Max:	+1000 (+540)
Pressure[2], Maximum, psig (bar):	2000 (138)
P x T (max.)[2], psig x °F (bar x °C)	
1/32 and 1/16":	700,000 (25,000)
1/8":	350,000 (12,000)
Meets Specification:	ABS (American Bureau of Shipping) and Fire Safe

PHYSICAL PROPERTIES*

ASTM F36	**Compressibility**, %:	43		
ASTM F36	**Recovery**, %:	14		
ASTM F38	**Creep Relaxation**, %:	15		
ASTM F152	**Tensile**, Across Grain, psi (N/mm^2):	4000 (27)		
DIN 52913	**Stability Under Stress**, % (N/mm^2):	90		
ASTM F1315	**Density**, lbs./ft.^{3} (grams/cm3):	70 (1.12)		
ASTM F586	**Design Factors**	1/16"	1/8"	
	"m" factor:	6.5	11.8[3]	
	"y" factor, psi (N/mm^2):	3300 (22.8)	5900 (40.7)	
ROTT	**Gasket Constants**, 1/16":	Gb=816	a=0.377	Gs=0.066
ASTM F104	**Line Call Out**:	F527000B4M5		

SEALING CHARACTERISTICS*

	ASTM F37B Fuel A	ASTM F37B Nitrogen	DIN 3535- 4 Gas Permeability
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	**1.0 ml/hr.**	**1.5 ml/hr.**	**1.5 cc/min**

Chemical Impurity Data

Chemical Limits			
Leachable Levels, Max., ppm		**Total Chemical Limits**, Max., ppm	
Chlorides:	100	**Total Chlorides**:	500
		Total Fluorides:	300
		Total Sulfur:	1000

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 based on 1/32" (0.8mm) sheet thickness unless otherwise mentioned.

* Values do not constitute specification Limits

[2] 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.

[3] This "m" value, based on ambient temperature leakage with nitrogen, is high. Field experience has shown that lower values would be workable in elevated temperatures. Consult Applications Engineering.