GRAPH-LOCK® Style 3128 HOCHDRUCK®

MATERIAL PROPERTIES*:

Color:	Black
Composition:	Graphite with multiple 0.002" 316SS foil inserts
	A multilayer, high strength sheet material composed of .020" thick layers of high purity flexible graphite foil (carbon >99.85%) and .002" thick layers of 316 stainless steel foil insert. Depending on the sheet thickness, several layers of graphite and stainless steel are bonded together in a proprietary process; no adhesive is used. Maximum ash content is 0.15%.

Temperature[1], °F (°C)

Minimum:	-400 (-240)
Continuous Max:	+850 (+454)

Pressure[1], Maximum, psig (bar): 2000 (138)

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, %:	30-40	
ASTM F36	**Recovery**, %:	20	
ASTM F38	**Creep Relaxation,** %:	10	
ASTM F152	**Tensile**, Across Grain, psi (N/mm^2):	4500 (31)	
DIN 52913	**Load Retention**, %:	96	
ASTM F1315	**Density**, lbs./ft.^{3} (grams/cm^3):	70 (1.12)	
ASTM F586	**Design Factors**	1/16"	1/8"
	"m" factor:	3.0	3.6
	"y" factor, psi (N/mm^2):	2000 (13.8)	3000 (20.7)

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	**0.2 ml/hr.**	**0.1 ml/hr.**	**0.4 cc/min**

CHEMICAL IMPURITY DATA

Chemical Limits			
Leachable Levels Max., ppm	**ppm**	**Total Chemical Limits**, Max., ppm	**ppm**
Chlorides:	20	**Total Chlorides:**	20
Fluorides:	40	**Total Sulfur:**	600

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.