

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%.

Temperature¹, °F (°C)

Minimum:	-450 (-268)
Continuous Max:	+850 (+454)

Pressure¹, 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, %:	30-40
ASTM F36	Recovery, %:	20
ASTM F38	Creep Relaxation, %:	10
ASTM F152	Tensile, Across Grain, psi (N/mm²):	4500 (31)
DIN 52913	Load Retention, %:	96
ASTM F1315	Density, lbs./ft.³ (grams/cm³):	70 (1.12)
ASTM F586	Design Factors	<u>1/16"</u> <u>1/8"</u>
	"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 P x T, consult Garlock Applications Engineering. Minimum temperature rating is conservative.

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