



Garlock HOCHDRUCK®

Graph-Lock® Style 3128RS Nuclear Grade

MATERIAL PROPERTIES*

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%.
Color:	Black
Temperature², °F (°C)	
Minimum:	-400 (-240)
Continuous Max ³ :	+850 (+454)
Pressure², Maximum, psig (bar):	2000 (138)
P x T (max.)², psig x °F (bar x °C)	
1/8":	700,000 (25,000)
1/8":	350,000 (12,000)
Meets Specification:	Fire Safe

PHYSICAL PROPERTIES*

ASTM F36	Compressibility, %:	30-40
ASTM F36	Recovery, %:	20
ASTM F38	Creep Relaxation, %:	10
ASTM F152	Tensile, Across Grain, psi (N/mm²):	4500 (31)
DIN 52913	Stability Under Stress, % (N/mm²):	96
ASTM F1315	Density, lbs./ft.³ (grams/cm³):	70 (1.12)
ASTM F104	Line Call Out:	F527000B2M8

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	2.0 ml/hr.	0.1 ml/hr.	0.4 cc/min

Chemical Impurity Data

Chemical Limits			
Leachable Levels, Max., ppm		Total Chemical Limits, Max., ppm	
Chlorides:	20	Total Chlorides:	20
Fluorides	20	Total Sulfur:	300

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 P x T, consult Garlock Applications Engineering.

³ Maximum temperature of +1000°F (+540°C) for GRAPH-LOCK HT.