





MATERIAL PROPERTIES

Color: Off White

Composition: PTFE with barium sulfate

Fluid Services¹: Strong caustics, moderate acids, chlorine, gases, water, steam, cryogenics,

hydrocarbons and aluminum fluoride

Temperature², °F (°C)

Minimum: -450 (-268) Continuous Max: +500 (+260)

Pressure², Maximum, psig (bar): 1200 (83)

P x T (max.)², psig x °F (bar x °C)

1/32 and 1/16": 350,000 (12,000) 1/8": 250,000 (8,600) Flammability: Will Not Burn Bacterial Growth: Will Not Support

Meets Specification: ABS (American Bureau of Shipping) and FDA (Food and Drug Administration)

TYPICAL PHYSICAL PROPERTIES

ASTM F36	Compressibility, %:	4	-10
ASTM F36	Recovery, %:	•	40
ASTM F38	Creep Relaxation, %:	11	
ASTM F152	Tensile, Across Grain, psi (N/mm²):	2000 (13.8)	
ASTM D792	Specific Gravity:	2.80	
ASTM D1708	Modulus @ 100% Elongation, psi (N/mm2):	1400 (9.6)	
ASTM F433	Thermal Conductivity (K) , W/m°K (Btu.·in./hr.·ft. ² ·°F):	0.29-0.38 (2.00-2.65)	
ASTM D149	Dielectric Properties, range, volts/mil.		
	Sample conditioning	<u>1/16"</u>	<u>1/8"</u>
	3 hours at 250°F:	466 ⁽³⁾	-
	96 hours at 100% Relative Humidity	59	-
ASTM F586	Design Factors	1/16" & Under	<u>1/8"</u>
	"m" factor:	2.0	2.0
	"y" factor, psi (N/mm²):	2350 (16.2)	2500 (17.2)
ROTT	Gasket Constants, 1/16":	Gb=289 a=	0.274 Gs=6.61x10 ⁻¹¹
	1/8":	Gb=444 a=	0.332 Gs=1.29x10 ⁻²
ASTM F104	Line Call Out:	F451999A9B2E99K5M6 ⁽⁴⁾	

SEALING CHARACTERISTICS

	ASTM F37B Fuel A	DIN 3535- 4 Gas Permeability
Gasket Load, psi (N/mm2):	1000 (7)	4640 (32)
Internal Pressure, psig (bar):	9.8 (0.7)	580 (40)
Leakage	0.04 ml/hr.	<0.015 cc/min

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

¹ See Garlock chemical resistance guide.

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 Hanna Rubber Company.

³ Indicates current arced around and not through gasket. Dielectric higher than indicated.

⁴ Increase in IRM Oil #903 (fourth numeral 9 is thickness, fifth numeral 9 is weight): Thickness = 1.0% max, Weight = 2.0% max. Sixth numberal 9: % Increase in Water: Weight = 1.0% max. A9: Leakage in Fuel A (Isooctane), Pressure = 9.8psig (0.7bar), Gasket Load = 1,000psi (7.0N/mm2): Typical = 0.04ml/hr, Max = 1.0ml/hr. E99: % Increase in ASTM Fuel B: Weight: 2.0% max., Thickness: 1.0% max.