

**Garlock Sealing Technologies** Garlock Inc. 1666 Division Street Palmyra, NY 14522-9360 (800) 448-6688 (315) 597-4811 FAX (315) 597-3290

http://www.garlock.com



Material: Aramid Fiber w/SBR Binder

Color: Grey-Black

Fluid Services<sup>3</sup>: Water, Saturated Steam,

Inert Gases

Minimum Temperature<sup>1</sup>: -100°F(-75°C)

Continuous Operating Temp. 1: 400°F (205°C)

Maximum Temperature<sup>1</sup>: +700°F (371°C)

Pressure, Max.<sup>1</sup>: 1200 psi (83 bar) P x T, Max.<sup>1,2</sup>: 350,000 (12,000) 1/32"&1/16"

250,000 (8,600) 1/8"

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TEST METHOD	PHYSICAL PROPERTIES	STYLE 3400
ASTM F-37	Sealability	
	ml/hr. Leakage,	
	ASTM Fuel A (isooctane):	0.1
	Gasket Load, 500 psi (3.5 N/mm <sup>2</sup> )	
	Internal Pressure, 9.8 psig (.7 bar)	
	Nitrogen:	0.4
	Gasket Load, 3000 psi (20.7 N/mm <sup>2</sup> )	
ASTM F-36	Recovery, min. (%):	50
ASTM F-36	Compressibility, (%) range:	7-17
ASTM F-38	Creep Relaxation, (%):	18.4
Method B	22 hrs. @ 212° F (100° C)	
ASTM F-146	Fluid Resistance After Five Hours Immersion	IS
	ASTM #1 Oil @ +300° F	
	Thickness Increase Range (%):	0-10
	Weight Increase, Maximum (%):	20
	<u>ASTM IRM 903 Oil @ +300° F</u>	
	Thickness Increase Range (%):	15-30
	Tensile Loss, Maximum (%):	70
	<u>ASTM Fuel A @ 70 - 85°F</u>	
	Thickness Increase Range (%):	0-15
	Weight Increase, Maximum (%):	25
	<u>ASTM Fuel B @ 70 - 85°F</u>	
	Thickness Increase Range (%):	5-20
	Weight Increase, Maximum (%):	30
ASTM F-152	Tensile Strength (psi)	
	Across Grain, psi (N/mm <sup>2</sup> ):	2250 (15 MPa)
	<b>Density</b> , Lbs./Ft. <sup>3</sup> (grams/cm <sup>3</sup> ):	100 (1.60)

ASTM F104 Line Callout - (Based on 1/32" thickness) F712900A9B4E45K5M9

Thickness Increase #3 Oil = 25-50%

A9: (1) ASTM Fuel A Leakage: 1.0 ml/hr max. (0.1 ml/hr typical)

(2) Nitrogen Leakage: 1.0 ml/hr max. (0.4 ml/hr typical)

M9: 2,250 psi (15 N/mm<sup>2</sup>) min.

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.

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.

<sup>2</sup> P x T, max. = psig x °F (bar x °C)

<sup>&</sup>lt;sup>3</sup> See Garlock chemical resistance guide.