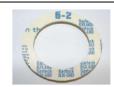


an EnPro Industries company



# Garlock BLUE-GARD® 3200

### MATERIAL PROPERTIES\*

Color:	Off-white		
Composition:	Aramid fibers with a SBR binder		
Fluid Services <sup>1</sup> :	Water, saturated steam <sup>4</sup> , inert gases		
Temperature <sup>2</sup> , °F (°C)			
Minimum:	-100 (-73)		
Continuous Max:	+400 (+205)		
Maximum:	+700 (+371)		
Pressure <sup>2</sup> , Maximum, psig (bar):	1200 (83)		
P x T (max.) <sup>2</sup> , psig x °F (bar x °C)			
1/32 and 1/16":	350,000 (12,000)		
1/8":	250,000 (8,600)		
Meets Specification:	ABS (American Bureau of Shipping) and MIL-DTL-24696C <sup>6</sup>		

# TYPICAL PHYSICAL PROPERTIES'

ASTM F36	Compressibility, range, %:	7-17
ASTM F36	Recovery, %:	50
ASTM F38	Creep Relaxation, %:	18
ASTM F152	Tensile, Across Grain, psi (N/mm <sup>2</sup> ):	2250 (15)
<b>ASTM F1315</b>	Density, lbs./ft.3 (grams/cm3):	100 (1.60)
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:	508 285 <sup>(3)</sup>
	96 hours at 100% Relative Humidity:	116 140
ASTM F586	Design Factors	<u>1/16" &amp; Under</u> <u>1/8"</u>
	"m" factor:	3.5 6.6
	"y" factor, psi (N/mm²):	2100 (14.5) 3000 (20.7)
ASTM F104	Line Call Out:	F712902A9B4E45K5L102M9 <sup>(5)</sup>

## 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	0.1 ml/hr.	0.4 ml/hr.	0.03 cc/min

# IMMERSION PROPERTIES\*- ASTM F146 Fluid Resistance after Five Hours

	ASTM #1 Oil	ASTM IRM #903	ASTM Fuel A	ASTM Fuel B
	300°F (150°C)	300°F (150°C)	70-85°F (20-30°C)	70-85°F (20-30°C)
Thickness Increase, (%)	0-10	15-30	0-15	5-20
Weight Increase, (%)	<20	-	<25	<30
Tensile Loss, (%)	-	<70	-	-

#### 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
- See Garlock chemical resistance guide.
- <sup>2</sup> 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>3</sup> Indicates current arced around and not through gasket. Dielectric higher than indicated.
- <sup>4</sup> These styles are not preferred choices for steam service, but are successful when adequately compressed. Minimum recommended assembly stress = 4,800psi. Preferred assembly stress = 6,000-10,000psi. Gasket thickness of 1/16" strongly preferred. Retorque the bolts/studs prior to pressurizing the assembly. For saturated steam above 150psig or superheated steam, consult Garlock Engineering.
- <sup>5</sup> Fourth numeral 9: % Thickness Increase in IRM Oil #903 = 25-50% max. A9: Leakage in Fuel A (Isooctane), Gasket Load = 500psi (3.5N/mm2), Pressure = 9.8psig (0.7bar): Typical = 0.1ml/hr, Max = 1.0ml/hr. A9: Leakage in Nitrogen, Gasket Load = 3,000psi (20.7N/mm2), Pressure = 30psig (2bar): Typical = 0.4ml/hr, Max = 1.0ml/hr. M9: Tensile Strength = 2,250psi min. (15N/mm2 min.).
- <sup>6</sup> To ensure receipt of product branded Mil-G-24696, certification will be required---fees associated based on quantity. Refer to "Military Specifications" in the Gasketing Terms section of the Engineered Gasket Products catalog for order/inquiry requirements.

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