GARLOCK DATA SHEETS

Compressed, Non-Asbestos (CNA) Gasketing Line

Garlock: **Blue Gard 3200**

PROUD DISTRIBUTOR *of* Garlock SEALING TECHNOLOGIES®

DESCRIPTION

The Garlock® BLUE-GARD® compressed, non-asbestos (CNA) gasketing line offers a variety of elastomers to excel in a wide range of services. The unique blend of aramid fibers, fillers and elastomeric binders provides improved torque retention and drastically lowered emissions levels. BLUE-GARD® CNA Gasketing offers cost savings by cutting operational costs through reduced waste, maintenance, stocked inventory, fluid loss, and energy consumption.

BENEFITS

- *Excellent sealability*
- *Unique blend of aramid fibers, fillers, and a SBR rubber binder provides improved torque retention and drastically lowered emissions levels.*
- *Cuts operational costs through reduced: Waste - Maintenance - Stocked Inventory - Fluid Loss - Energy Consumption*

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Material Properties		
Colour:	Off-white	
Composition:	Aramid fibers with a SBR binder	
Fluid Services [1]:	Water, saturated steam[4], inert gases	
Temperature[2], °F (°C)		
Minimum:	-100 (-73)	
Continuous:	+400 (+205)	
Maximum:	+700 (+371)	
Pressure[2], Maximum, psig (bar):	1200 (83)	
P × T (max.)[2], psig × °F (bar × °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[6]	

Physical Properties		
Compressibility, range, %:	7-17	
Recovery, %:	50	
Creep Relaxation, %:	18	
Tensile, Across Grain, psi (N/mm²):	2250 (15)	
Density, lbs./ft.³ (grams/cm³):	100 (1.60)	
Thermal Conductivity (K), W/m°K (Btu.in./hr.ft.²°F):	0.29 - 0.38 (2.00 - 2.65)	
Dielectric Properties, range, volts/mil.		
Sample conditioning	1/16"	1/8"
3 hours at 250°F:	508	285 [3]
96 hours at 100% Relative Humidity:	116	140
Design Factors	1/16" & Under	1/8"
"m" factor:	3.5	6.6
"y" factor, psi (N/mm²):	2100 (14.5)	3000 (20.7)
Line Call Out:	F712902A9B4E45K5L102M9[5]	

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

NOTE:
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 resis
[2] Based on ANSI RF flanges at our preferred torque. When approaching maximum pressure, continuous operating temperature, minimum temperatureor 50% of maximum PxT, consult Garlock Applications Engineering. Minimum temperature rating is conservative.
[3] Indicates current arced around and not through gasket. Dielectric higher than indicated.
[4] 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.
[5] 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.).
[6] 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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