GARLOCK DATA SHEETS

## Compressed, Non-Asbestos (CNA) Gasketing Line

# Garlock: **Blue Gard 3000**

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

**Ideal for utility services**

- *Excellent Sealability*
- *Unique blend of aramid fibers, fillers, and a NBR rubber binder provides improved torque retention and drastically lowered emissions levels*
- *Cuts Operational costs through reduced: Waste - Maintenance - Stocked inventory - Fluid Loss - Energy Consumption*


### DISCLAIMER

All data and statements concerning these products may be considered as being indicative of representative properties and characteristics obtainable. We make no warranty, expressed or implied, concerning actual use or results because of industry specific influences. All of the product data is nominal and does not represent a specification.



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| Material Properties | | |
|---|---|---|
| Colour: | Blue | |
| Composition: | Aramid fibers with a nitrile binder | |
| Fluid Services [1]: | Water, aliphatic hydrocarbons, oils and gasoline | |
| Temperature[2], °F (°C) | | |
| Minimum: | -100 (-73) | |
| Continuous: | +400 (+205) | |
| Maximum: | +700 (+371) | |
| Pressure[2], Maximum, psig (bar): | 1000 (70) | |
| 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 BS 7531 Grade Y | |

| Physical Properties | | |
|---|---|---|
| Compressibility, range, %: | 7-17 | |
| Recovery, %: | 50 | |
| Creep Relaxation, %: | 21 | |
| 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: | 396[3]-832 | 257[3]-363 |
| 96 hours at 100% Relative Humidity: | 271 | 142 |
| Design Factors | 1/16" & Under | 1/8" |
| "m" factor: | 4.2 | 5.2 |
| "y" factor, psi (N/mm²): | 3050 (21.0) | 4400 (30.3) |
| Line Call Out: | F712102A9B4E22K5L101M5[4] | |

| 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 | 0.2 ml/hr. | 0.6 ml/hr. | 0.05 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, (%) | 0-5 | 0-15 | 0-5 | 0-10 |
| Weight Increase, (%) | <8 | <20 | <8 | <15 |
| Tensile Loss, (%) | - | <35 | - | - |

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 resistance guide.

[2] Based on ANSI RF flanges at our preferred torque. When approaching maximum pressure, continuous operating temperature, minimum temperature or50% 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] A9: Leakage in Fuel A (Isooctane), Gasket Load = 500psi (3.5N/mm2), Pressure = 9.8psig (0.7bar): Typical = 0.2ml/hr, Max = 1.0ml/hr. A9: Leakage in Nitrogen, Gasket Load = 3,000psi (20.7N/mm2), Pressure = 30psig (2bar): Typical = 0.6ml/hr, Max = 1.5ml/hr.

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