

an EnPro Industries company

Garlock 2500

MATERIAL PROPERTIES^{*}

| Color: | Green | | | |
|---|---|--|--|--|
| Composition: | Aramid fibers with a nitrile binder. | | | |
| Fluid Services ¹ : | Water, saturated steam ⁵ , aliphatic hydrocarbons, oils and gasoline | | | |
| Temperature ² , °F (°C) | | | | |
| Minimum: | -100 (-73) | | | |
| Continuous Max: | +400 (+205) | | | |
| Pressure ² , Maximum, psig (bar): | 1000 (70) | | | |
| P x T (max.) ² , psig x °F (bar x °C) | | | | |
| 1/32 and 1/16": | 250,000 (8,600) | | | |
| 1/8": | 150,000 (5,100) | | | |

TYPICAL PHYSICAL PROPERTIES^{*}

| Compressibility, range, %: | 7-17 |
|--|--|
| Recovery, %: | 40 |
| Creep Relaxation, %: | 30 |
| Tensile, Across Grain, psi (N/mm ²): | 1250 (8.6) |
| Density , lbs./ft. ³ (grams/cm ³): | 120 (1.9) |
| Dielectric Properties, range, volts/mil. | |
| Sample conditioning | <u>1/16"</u> |
| 3 hours at 250°F: | 350+ ⁽³⁾ |
| Design Factors | <u>1/16" & Under</u> |
| "m" factor: | 6 ⁽⁴⁾ |
| "y" factor, psi (N/mm ²): | 2000(13.8) |
| | Compressibility, range, %: Recovery, %: Creep Relaxation, %: Tensile, Across Grain, psi (N/mm ²): Density, lbs./ft. ³ (grams/cm ³): Dielectric Properties, range, volts/mil. Sample conditioning 3 hours at 250°F: Design Factors "m" factor: "y" factor, psi (N/mm ²): |

SEALING CHARACTERISTICS^{*}

| | ASTM F37B Fuel A | ASTM F37B Nitrogen |
|--------------------------------|---------------------|-----------------------|
| Gasket Load, psi (N/mm2): | 500 (3.5) | 3000 (20.7) |
| Internal Pressure, psig (bar): | 9.8 (0.7) | 30 (2) |
| Leakage | 1.0 ml/hr. | 2.0 ml/hr. |

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 | 0-15 | 0-10 | 0-10 |
| Weight Increase, (%) | <15 | — | <10 | <15 |
| Tensile loss (%) | — | 0 - 40 | — | — |

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

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 Garlock

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

⁴ This "M" value, based on ambient temperature leakage with nitrogen, is high. Field experience has shown that lower values would be workable in elevated temperatures. Consult Applications Engineerin ⁵ These styles are appropriate for steam service 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.

¹ See Garlock chemical resistance guide. Use the column for Style 2900