



## Garlock OFF-WHITE GYLON® 3510

### MATERIAL PROPERTIES\*

|   |  |
|---|--|
| <b>Color:</b>   | Off White  |
| <b>Composition:</b>                                   | PTFE with barium sulfate   |
| <b>Fluid Services<sup>1</sup>:</b>                    | Strong caustics, moderate acids, chlorine, gases, water, steam, cryogenics, hydrocarbons and aluminum fluoride |
| <b>Temperature<sup>2</sup>, °F (°C)</b>               |  |
| Minimum:  | -450 (-268)  |
| Continuous Max:                                       | +500 (+260)  |
| <b>Pressure<sup>2</sup>, Maximum, psig (bar):</b>     | 1200 (83)  |
| <b>P x T (max.)<sup>2</sup>, psig x °F (bar x °C)</b> |  |
| 1/32 and 1/16":                                       | 350,000 (12,000)   |
| 1/8":   | 250,000 (8,600)  |
| <b>Flammability:</b>                                  | Will Not Burn  |
| <b>Bacterial Growth:</b>                              | Will Not Support   |
| <b>Meets Specification:</b>                           | ABS (American Bureau of Shipping) and FDA (Food and Drug Administration)                                       |

### TYPICAL PHYSICAL PROPERTIES\*

|                   |  |                                   |                          |                           |
|-------------------|--|-----------------------------------|--------------------------|---------------------------|
| <b>ASTM F36</b>   | <b>Compressibility, %:</b>   | 4-10                              |                          |                           |
| <b>ASTM F36</b>   | <b>Recovery, %:</b>  | 40                                |                          |                           |
| <b>ASTM F38</b>   | <b>Creep Relaxation, %:</b>  | 11                                |                          |                           |
| <b>ASTM F152</b>  | <b>Tensile, Across Grain, psi (N/mm<sup>2</sup>):</b>                                | 2000 (13.8)                       |                          |                           |
| <b>ASTM D792</b>  | <b>Specific Gravity:</b>   | 2.80                              |                          |                           |
| <b>ASTM D1708</b> | <b>Modulus @ 100% Elongation, psi (N/mm<sup>2</sup>):</b>                            | 1400 (9.6)                        |                          |                           |
| <b>ASTM F433</b>  | <b>Thermal Conductivity (K), W/m<sup>2</sup>K (Btu. in./hr. ft.<sup>2</sup>.°F):</b> | 0.29-0.38 (2.00-2.65)             |                          |                           |
| <b>ASTM D149</b>  | <b>Dielectric Properties, range, volts/mil.</b>                                      |                                   | <u>1/16"</u>             | <u>1/8"</u>               |
|                   | Sample conditioning  |                                   | 466 <sup>(3)</sup>       | -                         |
|                   | 3 hours at 250°F:  |                                   | 59                       | -                         |
|                   | 96 hours at 100% Relative Humidity   |                                   |                          |                           |
| <b>ASTM F586</b>  | <b>Design Factors</b>  |                                   | <u>1/16" &amp; Under</u> | <u>1/8"</u>               |
|                   | "m" factor:  |                                   | 2.0                      | 2.0                       |
|                   | "y" factor, psi (N/mm <sup>2</sup> ):  |                                   | 2350 (16.2)              | 2500 (17.2)               |
| <b>ROTT</b>       | <b>Gasket Constants, 1/16":</b>  | Gb=289                            | a=0.274                  | Gs=6.61x10 <sup>-11</sup> |
|                   | 1/8":  | Gb=444                            | a=0.332                  | Gs=1.29x10 <sup>-2</sup>  |
| <b>ASTM F104</b>  | <b>Line Call Out:</b>  | F451999A9B2E99K5M6 <sup>(4)</sup> |                          |                           |

### SEALING CHARACTERISTICS\*

|   | <b>ASTM F37B<br/>Fuel A</b> | <b>DIN 3535- 4<br/>Gas Permeability</b> |
|---|-----------------------------|---|
| <b>Gasket Load, psi (N/mm<sup>2</sup>):</b> | 1000 (7)                    | 4640 (32)                               |
| <b>Internal Pressure, psig (bar):</b>       | 9.8 (0.7)                   | 580 (40)                                |
| <b>Leakage</b>                              | <b>0.04 ml/hr.</b>          | <b>&lt;0.015 cc/min</b>                 |

#### 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

<sup>1</sup> 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 P x T, consult Garlock Applications Engineering.

<sup>3</sup> Indicates current arced around and not through gasket. Dielectric higher than indicated.

<sup>4</sup> Increase in IRM Oil #903 (fourth numeral 9 is thickness, fifth numeral 9 is weight): Thickness = 1.0% max, Weight = 2.0% max. Sixth numeral 9: % Increase in Water: Weight = 1.0% max. A9: Leakage in Fuel A (Isooctane), Pressure = 9.8psig (0.7bar), Gasket Load = 1,000psi (7.0N/mm<sup>2</sup>): Typical = 0.04ml/hr, Max = 1.0ml/hr. E99: % Increase in ASTM Fuel B: Weight: 2.0% max., Thickness: 1.0% max.