



## Garlock GYLON® 3561 Metal Inserted GYLON 3510

### MATERIAL PROPERTIES\*

|                                                       |                                                                                                                |
|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| <b>Color:</b>                                         | Off-white                                                                                                      |
| <b>Composition:</b>                                   | PTFE with barium sulfate and perforated 316L stainless steel insert                                            |
| <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>               |                                                                                                                |
| Continuous Max:                                       | +500 (+260)                                                                                                    |
| <b>Pressure<sup>2</sup>, Maximum, psig (bar):</b>     | 2500 (172)                                                                                                     |
| <b>P x T (max.)<sup>2</sup>, psig x °F (bar x °C)</b> |                                                                                                                |
| 1/32 and 1/16":                                       | 700,000 (25,000)                                                                                               |
| 1/8":                                                 | 450,000 (15,000)                                                                                               |
| <b>Flammability:</b>                                  | Will Not Burn                                                                                                  |
| <b>Bacterial Growth:</b>                              | Will Not Support                                                                                               |

### PHYSICAL PROPERTIES\*

|                   |                                                                          |                                          |
|-------------------|--------------------------------------------------------------------------|------------------------------------------|
| <b>ASTM F36</b>   | <b>Compressibility, %:</b>                                               | 3-7 <sup>(3)</sup>                       |
| <b>ASTM F36</b>   | <b>Recovery, %:</b>                                                      | 50 <sup>(3)</sup>                        |
| <b>ASTM F38</b>   | <b>Creep Relaxation, %:</b>                                              | 20 <sup>(3)</sup>                        |
| <b>ASTM F152</b>  | <b>Tensile, Across Grain, psi (N/mm<sup>2</sup>):</b>                    | 5000 (34) <sup>3</sup>                   |
| <b>ASTM D1708</b> | <b>Modulus @ 100% Elongation, psi (N/mm<sup>2</sup>):</b>                | N/A                                      |
| <b>ASTM F433</b>  | <b>Thermal Conductivity (K), W/m·°K (Btu·in./hr·ft.<sup>2</sup>·°F):</b> | 0.29-0.38 (2.00-2.65)                    |
| <b>ASTM F586</b>  | <b>Design Factors</b>                                                    | <u>1/16"</u> <u>1/8"</u>                 |
|                   | "m" factor:                                                              | 5.0 5.0                                  |
|                   | "y" factor, psi (N/mm <sup>2</sup> ):                                    | 3500 (24.1) 4000 (27.6)                  |
| <b>ROTT</b>       | <b>Gasket Constants, 1/16":</b>                                          | Gb=72.3 a=0.466 Gs=2.16x10 <sup>-1</sup> |
| <b>ASTM F104</b>  | <b>Line Call Out:</b>                                                    | F451999A9B2E99K5M6 <sup>(3,4)</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>0.01<sup>(3)</sup> ml/hr.</b> | <b>&lt;0.015<sup>(3)</sup> 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 1/16" (1.6mm) 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 PxT, consult Garlock Applications Engineering.

<sup>3</sup> Tested on 1/16" thick material.

<sup>4</sup> Tested on 1/16" material. 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 (Isocetane), Gasket Load = 1,000psi (7.0N/mm<sup>2</sup>), Pressure = 9.8psig (0.7bar): Typical = 0.04ml/hr, Max = 1.0ml/hr. E99: % Increase in ASTM Fuel B: Weight: 2.0% max., Thickness: 1.0% max.