Garlock 5500

**MATERIAL PROPERTIES**

**Color:** Gray  
**Composition:** Inorganic fibers with a nitrile binder  
**Fluid Services:** Saturated steam, most refrigerants, water, oils, gasoline and aliphatic hydrocarbons

**Temperature:** 
- Minimum: -100 (-73)°F  
- Continuous Max: +550 (+288)°F  
- Maximum: +800 (+427)°F

**Pressure:** Maximum, psig (bar): 1200 (83)

**P x T (max.)**  
- 1/32 and 1/16": 400,000 (14,000) psig °F  
- 1/8": 275,000 (9,600) psig °F

**Meets Specification:** ABS (American Bureau of Shipping) and Fire Safe

**PHYSICAL PROPERTIES**

**ASTM F36 Compressibility**  
Compressibility, range, %: 7-17

**ASTM F36 Recovery**  
Recovery, %: 50

**ASTM F38 Creep Relaxation**  
Creep Relaxation, %: 15

**ASTM F152 Tensile**  
Tensile, Across Grain, psi (N/mm²): 1500 (10)

**ASTM F1315 Density**  
Density, lbs./ft.³ (grams/cm³): 110 (1.76)

**ASTM F433 Thermal Conductivity**  
Thermal Conductivity (K), W/m°K (Btu.in./hr.·ft.²·°F): 0.43-0.53 (3.00-3.65)

**ASTM D149 Dielectric Properties**  
Dielectric Properties, range, volts/mil.

- 3 hours at 250°F: 284  
- 96 hours at 100% Relative Humidity: -

**ASTM F586 Design Factors**  
Design Factors  
- 1/16" & Under  
- 1/8"  
- "m" factor: 6.6  
- "y" factor, psi (N/mm²): 2600 (17.9)  
- 3000 (22.8)

**ROTT Gasket Constants**  
Gasket Constants, 1/16":  
-Gb=1,247  
- a=0.249  
-Gs=11.0

**ASTM F104 Line Call Out**  
F712103A9B4E23K7L501M4

**SEALING CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Gasket Load, psi (N/mm2):</th>
<th>ASTM F37B Fuel A</th>
<th>ASTM F37B Fuel B</th>
<th>DIN 3535-4 Gas Permeability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Pressure, psig (bar):</td>
<td>9.8 (0.7)</td>
<td>30 (2)</td>
<td>580 (40)</td>
</tr>
<tr>
<td>Leaking</td>
<td>0.2 ml/hr.</td>
<td>1.0 ml/hr.</td>
<td>0.05 cc/min</td>
</tr>
</tbody>
</table>

**IMMERSON PROPERTIES** - ASTM F146 Fluid Resistance after Five Hours

| Thickness Increase, (%) | 0-10 | 0-15 | 0-10 | 0-15 |
| Weight Increase, (%) | <15 | - | <10 | <15 |
| Tensile Loss, (%) | - | <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.

1 Values do not constitute specification Limits  
2 See Garlock chemical resistance guide.  
3 Based on ANSI RF flanges at our preferred torque. When approaching maximum pressure, continuous operating temperature, minimum temperature or 50% of maximumPxT, consult Garlock Applications Engineering. Minimum temperature rating is conservative.

**AB:** 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 = 0.5ml/hr, Max = 1.5ml/hr.