



## Garlock GYLON® 3565 ENVELON®

### MATERIAL PROPERTIES\*

<b>Color:</b>	White exterior and blue interior
<b>Composition:</b>	PTFE with glass microspheres
<b>Fluid Services<sup>1</sup>:</b>	Moderate concentrations of acids, some caustics, hydrocarbons, solvents, hydrogen peroxide, refrigerants and cryogenics
<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>	FDA (Food and Drug Administration)

### TYPICAL PHYSICAL PROPERTIES\*

<b>ASTM F36</b>	<b>Compressibility, %:</b>	30-50 <sup>(3)</sup>	
<b>ASTM F36</b>	<b>Recovery, %:</b>	35 <sup>(3)</sup>	
<b>ASTM F38</b>	<b>Creep Relaxation, %:</b>	35 <sup>(3)</sup>	
<b>ASTM F152</b>	<b>Tensile, Across Grain, psi (N/mm<sup>2</sup>):</b>	1800 (12.4) <sup>3</sup>	
<b>ASTM D792</b>	<b>Specific Gravity:</b>	1.65	
<b>ASTM D1708</b>	<b>Modulus @ 100% Elongation, psi (N/mm<sup>2</sup>):</b>	1300 (8.9)	
<b>ASTM D149</b>	<b>Dielectric Properties, range, volts/mil.</b>		
	Sample conditioning	<u>1/16"</u>	<u>1/8"</u>
	3 hours at 250°F:	301	-
	96 hours at 100% Relative Humidity	221	-
<b>ASTM F586</b>	<b>Design Factors</b>	<u>1/16" &amp; Under</u>	<u>1/8"</u>
	"m" factor:	2.8	3.7
	"y" factor, psi (N/mm <sup>2</sup> ):	1400 (9.6)	2300 (15.9)
<b>ASTM F104</b>	<b>Line Call Out:</b>	F457999A9B6E99M6 <sup>(3,4)</sup>	

### SEALING CHARACTERISTICS\*

	<b>ASTM F37B Fuel A</b>	<b>DIN 3535- 4 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>0.33<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. See Note (3).

\* 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> Tested on 1/16" thick material.

<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 = 0.33ml/hr, Max = 1.0ml/hr. E99: % Increase in ASTM Fuel B: Weight: 2.0% max., Thickness: 1.0% max.