



Garlock GYLON® 3565 ENVELON®

MATERIAL PROPERTIES*

Color:	White exterior and blue interior
Composition:	PTFE with glass microspheres
Fluid Services¹:	Moderate concentrations of acids, some caustics, hydrocarbons, solvents, hydrogen peroxide, refrigerants and cryogenics
Temperature², °F (°C)	
Minimum:	-450 (-268)
Continuous Max:	+500 (+260)
Pressure², Maximum, psig (bar):	1200 (83)
P x T (max.)², psig x °F (bar x °C)	
1/32 and 1/16":	350,000 (12,000)
1/8":	250,000 (8,600)
Flammability:	Will Not Burn
Bacterial Growth:	Will Not Support
Meets Specification:	FDA (Food and Drug Administration)

PHYSICAL PROPERTIES*

ASTM F36	Compressibility, %:	30-50 ⁽³⁾	
ASTM F36	Recovery, %:	35 ⁽³⁾	
ASTM F38	Creep Relaxation, %:	35 ⁽³⁾	
ASTM F152	Tensile, Across Grain, psi (N/mm²):	1800 (12.4) ³	
ASTM D792	Specific Gravity:	1.65	
ASTM D1708	Modulus @ 100% Elongation, psi (N/mm2):	1300 (8.9)	
ASTM D149	Dielectric Properties, range, volts/mil.		
	Sample conditioning	1/16"	1/8"
	3 hours at 250°F:	301	-
	96 hours at 100% Relative Humidity	221	-
ASTM F586	Design Factors	1/16" & Under	1/8"
	"m" factor:	2.8	3.7
	"y" factor, psi (N/mm ²):	1400 (9.6)	2300 (15.9)
ASTM F104	Line Call Out:	F457999A9B6E99M6 ^(3,4)	

SEALING CHARACTERISTICS*

	ASTM F37B Fuel A	DIN 3535- 4 Gas Permeability
Gasket Load, psi (N/mm2):	1000 (7)	4640 (32)
Internal Pressure, psig (bar):	9.8 (0.7)	580 (40)
Leakage	0.33⁽³⁾ ml/hr.	<0.015⁽³⁾ cc/min

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

¹ See Garlock chemical resistance guide.

² 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.

³ Tested on 1/16" thick material.

⁴ 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/mm2): Typical = 0.33ml/hr, Max = 1.0ml/hr. E99: % Increase in ASTM Fuel B: Weight: 2.0% max., Thickness: 1.0% max.