

Garlock GYLON® 3563

GYLON 3561 For Oxygen Service

MATERIAL PROPERTIES*

Color:	Off-white
Composition:	PTFE with barium sulfate and perforated 316L stainless steel insert
Fluid Services¹:	Oxygen service, strong caustics, moderate acids, chlorine, gases, steam, cryogenics, hydrocarbons, and aluminum fluoride
Temperature², °F (°C)	
Continuous Max:	+500 (+260)
Pressure², Maximum, psig (bar):	2500 (172)
P x T (max.)², psig x °F (bar x °C)	
1/32 and 1/16":	700,000 (25,000)
1/8":	450,000 (15,000)
Flammability:	Will Not Burn
Bacterial Growth:	Will Not Support

PHYSICAL PROPERTIES*

ASTM F36	Compressibility, %:	3-7 ⁽³⁾
ASTM F36	Recovery, %:	50 ⁽³⁾
ASTM F38	Creep Relaxation, %:	20 ⁽³⁾
ASTM F152	Tensile, Across Grain, psi (N/mm²):	5000 (34) ³
ASTM D1708	Modulus @ 100% Elongation, psi (N/mm²):	N/A
ASTM F433	Thermal Conductivity (K), W/m°K (Btu·in./hr·ft.²·°F):	0.29-0.38 (2.00-2.65)
ASTM F586	Design Factors	1/16" 1/8"
	"m" factor:	5.0 5.0
	"y" factor, psi (N/mm ²):	3500 (24.1) 4000 (27.6)
ASTM F104	Line Call Out:	F451999A9B2E99K5M6 ^(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	0.01⁽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.

* 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 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 (Isooctane), Gasket Load = 1,000psi (7.0N/mm²), 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.