

GYLON® Style 3522

MATERIAL PROPERTIES*:

Color:	Clear, translucent
Composition:	PTFE
Fluid Services (see chemical resistance guide):	Strong acids, caustics, solvents, food and beverage products
Temperature ⁽¹⁾⁽²⁾ , °F (°C)	
Minimum:	-450 (-268)
Maximum:	+500 (+260)
Ideal Operating Limit:	+400 (+204)
Pressure ¹ , psig (bar):	
Minimum:	Full Vacuum
Maximum:	800 (55)
Ideal Operating Limit:	750 (52)
Flammability:	Will Not Support Flame
Bacterial Growth:	Will Not Support
Meets Specifications:	FDA Regulation 21 CFR 177.1550, 3A Sanitary Standard #20, NSF / ANSI Standard 61, USP Class VI Chapter <87> and <88>, USP Chapters <281> and <661>, ADC Free

TYPICAL PHYSICAL PROPERTIES*:

ASTM F36	Compressibility , average, %:	20-25
ASTM F36	Recovery , %:	45-50
ASTM F38	Creep Relaxation , %:	35
ASTM D1708	Tensile , Across Grain, psi (N/mm ²):	4500 (31)
ASTM D792	Specific Gravity:	2.14
ASTM D1708	Ultimate Elongation , %:	320
ASTM D1434V	Gas Permeability (Nitrogen) , cc/M ² /24 hrs	10,000
Garlock Method ⁽³⁾	Gas Permeability (Helium) , Atm.cc/sec	5 x 10 ⁻⁷
ASTM D2176 ⁽⁴⁾	MIT Flex Endurance , million cycles	17.6
Garlock Method	Stretch Void Index (SVI) , %	<0.7
ASTM F3149	m & y factors	
	1/16" thick	m = 2.2 y = 1000 psi
	1/8" thick	m = 2.5 y = 1500 psi
ROTT	Gasket Constants	
	1/16" thick	Gb = 38.1 psi a = 0.484 Gs = 17.68 psi
	1/8" thick	Gb = 687.4 psi a = 0.153 Gs = 21.34 psi

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

¹ Based on ANSI RF flanges at our preferred torque. When approaching maximum pressure, continuous operating temperature, minimum temperature or 50% of maximum P×T, consult Garlock Applications Engineering. Minimum temperature rating is conservative.

² Due to the unique dynamics of actuated pumps and valves, Garlock can not specify temperature limits for the Style 3522 materials when used as a diaphragm. There are variables such as, but not limited to, diaphragm geometry, displacement, and speed that greatly affected the diaphragm performance. Experienced equipment manufacturers have confirmed that equipment used in low and/or elevated service temperatures (40°F to 200°F) should be de-rated with respect to speed and pressure.

³ The test results are based on 1/16" thick sheet which was conducted at room temperature under 1 bar differential pressure and the leakage rate was detected by Helium Mass Spectrometer.

⁴ Based on 0.020" thick sheet.

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