



GYLON EPIX™ Style 3504 EPX

MATERIAL PROPERTIES

Color:	Blue
Composition:	PTFE with aluminosilicate microspheres
Fluid Service (see chemical resistance guide):	Moderate concentrations of acids, some caustics, hydrocarbons, solvents, hydrogen peroxide, refrigerants & cryogenics
Temperature	
Minimum:	-450°F (-268°C)
Ideal Operating Limit:	400°F (204°C)
Maximum:	500°F (260°C) see graph→
Pressure	
Ideal Operating Limit:	750 psig (52 bar)
Minimum:	Full Vacuum
Maximum:	1200 psig (83 bar) see graph→
Bacterial Growth:	Will Not Support
Specifications:	FDA, USP <87> <88> <661>, TA Luft Approved, REACH / RoHS Compliant

TYPICAL PHYSICAL PROPERTIES

ASTM F36L	Compressibility (average):	52%
ASTM F36L	Recovery:	25%
ASTM D1708	Tensile (across grain):	2,000 psi (13.8 MPa)
DIN 52913	Load Retention	
	16 hrs @ 500°F (260°) 7,250 psi (50MPa) gasket stress	50%

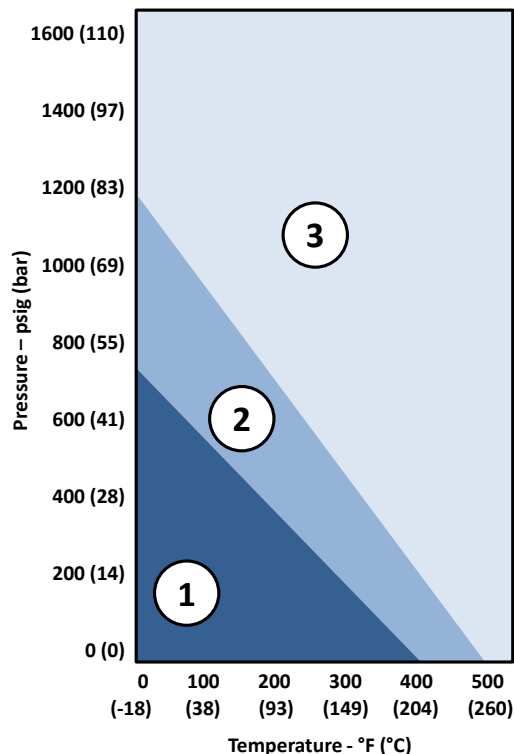
DESIGN & PERFORMANCE VALUES

ASTM F3149	Design Factors	
	“m” factor:	2.5
	“y” factor:	2,000 psi (13.8 MPa)
ASTM ROTT	Gasket Constants	
	Gb:	76 psi
	a:	0.508
	Gs:	13.6 psi
ASTM HOB2	Hot Blowout with thermal cycles	
	Rating at 435 psig:	432°F (222°C)

SEALING CHARACTERISTICS

ASTM F37B	Sealability (0.2" ID x 1.20" OD test gasket size)	
	Fuel A – 9.8 psig, 1,000 psi gasket stress:	0.2 ml/hr
	Nitrogen – 30 psig, 3,000 psi gasket stress:	0.15 ml/hr
DIN 3535	Gas Permeability	
	Part 6 – 580 psig (40 bar), 4,640 psi (32 MPa) gasket stress:	0.0005 mg/(m-sec)
	Part 4 – 580 psig (40 bar), 4,640 psi (32 MPa) gasket stress:	<0.006 cc/min

PRESSURE-TEMPERATURE RATING



LEGEND:

- 1 - Suitable for use if chemically compatible and installed using Garlock's recommended installation practices and assembly stresses.
- 2 - Please consult Garlock Applications Engineering to confirm the suitability with your service conditions.
- 3 - Generally not suitable – please consult Garlock Applications Engineering to confirm the suitability with your service conditions.

EN 13555 CHARACTERISTICS		GYLON EPIX™ Style 3504 EPX	
Q_{smax} Maximum Tolerated Assembly Stress at Various Temperatures	68°F (20°C)	29,000 psi (200 MPa)	
	212°F (100°C)	17,400 psi (120 MPa)	
	302°F (150°C)	14,500 psi (100 MPa)	
	392°F (200°C)	11,600 psi (80 MPa)	
	482°F (250°C)	8,700 psi (60 MPa)	
Q_{min} Minimum Stress Needed to Reach 0.01 [mg/(m-sec)] at Various System Pressures	145-290 psig (10-20 bar)	725 psi (5 MPa)	
	580 psig (40 bar)	725 psi (5 MPa)	
	1,160 psig (80 bar)	1,450 psi (10 MPa)	
Maximum Sealability Class at 68°F (20°C) at 2,900 psi (20 MPa) at Various System Pressures	145 psig (10 bar)	1.0x10 ⁻⁰⁴ mg/(s*m)	
	290-580 psig (20-40 bar)	1.0x10 ⁻³ mg/(s*m)	
	1,160 psig (80 bar)	1.0x10 ⁻³ mg/(s*m)	
Maximum Sealability Class at 68°F (20°C) at 23,200 psi (160 MPa) Assembly Stress at Noted System Pressure	580 psig (40 bar)	1.0x10 ⁻⁵ mg/(s*m)	
Initial & Residual Assembly Stress Required to Achieve Sealability of 0.01 mg/(m-sec) and Residual Load After Unloading to Maintain Sealability Class L0.01 mg/(m-sec)	System Pressure	QA – Initial Assembly Stress	Residual Assembly Stress
	145 psig (10 bar)	1,450 psi (10 MPa)	435 psi (3 MPa)
	290 psig (20 bar)	1,450 psi (10 MPa)	435 psi (3 MPa)
	580 psig (40 bar)	1,450 psi (10 MPa)	725 psi (5 MPa)
	1,160 psig (80 bar)	2,900 psi (20 MPa)	1,450 psi (10 MPa)
Data in accordance to DIN EN 13555 for calculations to be done in accordance to DIN EN 1591-1			
Data can be used for ASME PCC-1:2013 including Appendix "I" or Appendix "O".			
Please contact Garlock Engineering if gasket cross-section (width) is less than 0.5" (12.7mm).			

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