

GYLON EPIX™ Style 3510 EPX

MATERIAL PROPERTIES

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|--|--|
| Color: | Off-white |
| Composition: | PTFE with barium sulfate |
| Fluid Service (see chemical resistance guide): | Strong caustics, moderate acids, chlorine, gases, water, steam, cryogenics, hydrocarbons and aluminum fluoride |
| Temperature | |
| Minimum: | -450°F (-268°C) |
| Ideal Operating Limit: | 400°F (204°C) |
| Maximum: | 500°F (260°C) see chart→ |
| Pressure | |
| Ideal Operating Limit: | 750 psig (52 bar) |
| Maximum: | 1200 psig (83 bar) see chart→ |
| Bacterial Growth: | Will Not Support |
| Specifications: | FDA, USP <87> <88> <661>, TA Luft Approved, REACH / RoHS Compliant |

TYPICAL PHYSICAL PROPERTIES

| | | |
|------------|---|----------------------|
| ASTM F36L | Compressibility (average): | 43% |
| ASTM F36L | Recovery: | 18% |
| 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% |

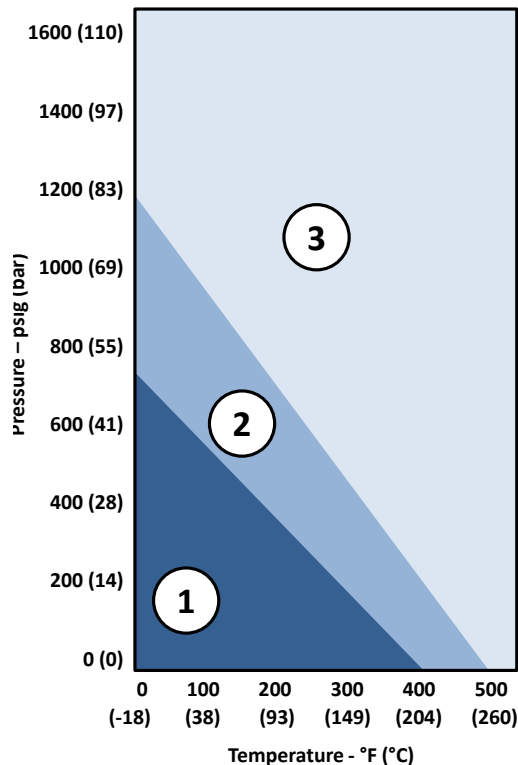
DESIGN & PERFORMANCE VALUES

| | | |
|------------|---------------------------------|----------------------|
| ASTM F3149 | Design Factors | |
| | “m” factor: | 2.5 |
| | “y” factor: | 2,000 psi (13.8 MPa) |
| ASTM ROTT | Gasket Constants | |
| | Gb: | 248 psi |
| | a: | 0.368 |
| | Gs: | 0.939 psi |
| ASTM HOBT2 | Hot Blowout with thermal cycles | |
| | Rating at 435 psig: | 475°F (246°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: | 0.2 ml/hr |
| DIN 3535 | Gas Permeability | |
| | Part 6 – 580 psig (40 bar), 4,640 psi (32 MPa) gasket stress: | 0.0005 mg/m*s |
| | Part 4 – 580 psig (40 bar), 4,640 psi (32 MPa) gasket stress: | <0.006 cc/min |

TEMPERATURE & PRESSURE 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 3510 EPX | |
|---|--------------------------|---------------------------------------|-----------------------------|
| Q_{smax} Maximum Tolerated Assembly Stress at Various Temperatures | 68°F (20°C) | 33,350 psi (230 MPa) | |
| | 212°F (100°C) | 23,200 psi (160 MPa) | |
| | 302°F (150°C) | 20,300 psi (140 MPa) | |
| | 392°F (200°C) | 17,400 psi (120 MPa) | |
| | 482°F (250°C) | 14,500 psi (100 MPa) | |
| Q_{min} Minimum Stress Needed to Reach 0.01 [mg/(s*m)] 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 ⁻⁶ mg/(s*m) | |
| Initial & Residual Assembly Stress Required to Achieve Sealability of 0.01 mg/(s*m) and Residual Load After Unloading to Maintain Sealability Class L0.01 mg/(s*m) | 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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