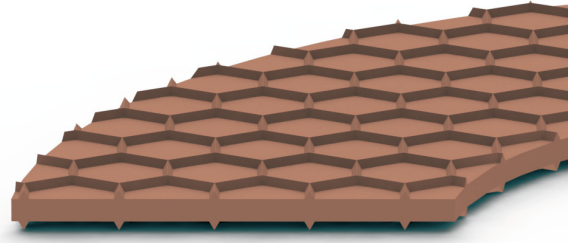


GYLON EPIX® Style 3501-E

The next level in PTFE gasketing

Description

GYLON EPIX® Style 3501-E is a high performance, silica filled PTFE material designed for use with strong acids, solvents, hydrocarbons, and other aggressive media. GYLON EPIX® will provide superior functional performance by combining the traditional attributes of GYLON® with an innovative surface design. It offers a broader range of applications than traditional PTFE gaskets. GYLON EPIX® delivers the tight sealing and load retention properties of 1.6 mm and the conformability of 3.2 mm. The hexagonal profile provides improved compressibility and recovery. The profiled surface reduces the contact area during initial compression to concentrate the compressive force of the flange for improved sealability.



Main Segments

| |
|------------------|
| » Chemical |
| » Petrochemical |
| » Metal |
| » Oil and Mining |

Certificates/Declaration*

| |
|--------------------------------|
| » TA-Luft incl. blow-out proof |
| » DIN EN 13555 values |
| » FDA 21 CFR177.1550 |
| » KTW |
| » Phthalate free |
| » Silicone free |
| » ADI free (EMEA 410/01) |

Key Benefits

| |
|---|
| » Higher sealability - Ultra low emission |
| » Reduced product loss |
| » Inventory simplification – „One fits all“ |
| » More forgiving - Easy Installation |
| » Increased safety window |
| » Improved load retention |
| » Better compensation |
| » Higher surface pressure with less load |
| » Higher max. load tolerated |
| » Improved compressibility and recovery |
| » Unique gasketing material |
| » Trusted GYLON® material |
| » Suitable for low-load applications* |
| » Seals imperfect flanges (Worn and pitted) |
| » No intrusion/recession |
| » Excellent chemical resistance** |
| » Stopped cold flow |
| » Wide temperature and pressure range |

Features*

| |
|-----------------------------------|
| » Temperature: -268 °C to +260 °C |
| » Pressure: up to 83 bar |
| » Thickness: 2,4 mm |
| » Patented hexagonal profile |
| » 5 MPa (N/mm²) minimum load* |
| » 230 MPa (N/mm²) maximum load* |
| » Compressibility (average): 47% |
| » Recovery: 17% |

* Depending on product and application details.

** See Garlock resistance table.

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Available sizes

| | GYLON EPIX® Style 3501-E |
|--------------------|-------------------------------------|
| Thickness | 2,4 mm (3/32") |
| Tolerance | 0,2 mm (+/- 0,008") |
| Sheet Sizes | 1,5 m x 1,5 m (60" x 60") |

DIN EN 13555 characteristics

| | | Test Method | Unit | GYLON EPIX® Style 3501-E | GYLON EPIX® Style 3504 | GYLON EPIX® Style 3510 |
|---|-------------------------------|--------------------|-------------------------------------|-------------------------------------|-----------------------------------|-----------------------------------|
| Maximum tolerated assembly stress in accordance to DIN EN 13555 Q_{smax} | 20°C (68°F) | EN 13555 | MPa (psi) | 230 (33 350) | 200 (29 000) | 230 (33 350) |
| | 100°C (212°F) | EN 13555 | MPa (psi) | 200 (29 000) | 120 (17 400) | 160 (23 200) |
| | 150°C (302°F) | EN 13555 | MPa (psi) | 200 (29 000) | 100 (14 500) | 140 (20 300) |
| | 200°C (392°F) | EN 13555 | MPa (psi) | 180 (26 100) | 80 (11 600) | 120 (17 400) |
| | 250°C (482°F) | EN 13555 | MPa (psi) | 160 (23 200) | 60 (8 700) | 100 (14 500) |
| Minimum stress Q_{min} (L=0,01) needed during installation to reach 0,01 [mg / (s * m)] | 10-40 bar (150-600 psig) | EN 13555 | MPa (psi) | 5 (725) | 5 (725) | 5 (725) |
| | 80 bar (1 160 psig) | EN 13555 | MPa (psi) | 12 (1 740) | 10 (1 450) | 10 (1 450) |
| Maximum sealability class at 20°C(68°F) at 20 MPa (2 900 psi) Assembly Stress | 10-20 bar (145-290 psig) | EN 13555 | L[mg/(s*m)] | 1,0x10 ⁻⁴ | 1,0x10 ⁻⁴ | 1,0x10 ⁻⁴ |
| | 40-80 bar (580-1 160 psig) | EN 13555 | L[mg/(s*m)] | 1,0x10 ⁻³ | 1,0x10 ⁻³ | 1,0x10 ⁻³ |
| Maximum sealability class at 20°C(68°F) at 160 MPa (23 200 psi) Assembly Stress | 40 bar (580 psig) | EN 13555 | L[mg/(s*m)] | 1,0x10 ⁻⁶ | 1,0x10 ⁻⁵ | 1,0x10 ⁻⁵ |
| | Corresponding pressure | | Initial Assembly Stress (QA) | Residual Assembly Stress | Residual Assembly Stress | Residual Assembly Stress |
| Initial & residual assembly stress Q_{sm} required to achieve sealability of 0,01 [mg/(s*m)] (In accordance with DIN EN 13555 test method) | 10 bar (150 psig) | | 10 MPa (1 450 psi) | 3 MPa (435 psi) | 3 MPa (435 psi) | 3 MPa (435 psi) |
| | 20 bar (300 psig) | | 10 MPa (1 450 psi) | 4 MPa (580 psi) | 4 MPa (580 psi) | 4 MPa (580 psi) |
| | 40 bar (600 psig) | | 10 MPa (1 450 psi) | 5 MPa (725 psi) | 5 MPa (725 psi) | 5 MPa (725 psi) |
| | 80 bar (1 160 psig) | | 20 MPa (2 900 psi) | 10 MPa (1 450 psi) | 10 MPa (1 450 psi) | 10 MPa (1 450 psi) |

Note: All leak testing regarding DIN EN 13555 was performed with helium gas.

Note: Properties/applications shown throughout this brochure are typical. Your specific application should not be undertaken without independent study and evaluation for suitability. For specific application recommendations consult Garlock. Failure to select the proper sealing products could result in property damage and/or serious personal injury. Performance data published in this brochure has been developed from field testing, customer field reports and/or in-house testing. While the utmost care has been used in compiling this brochure, we assume no responsibility for errors. Specifications subject to change without notice. This edition cancels all previous issues. Subject to change without notice GARLOCK is a registered trademark for packings, seals, gaskets, and other products of Garlock.
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