DURLON® 9645

Microcellular PTFE with Rigid PTFE core
ASTM F104: F497130E21M4

The Durlon® 9645 product range offers a biaxially-oriented PTFE sheet solution that combines superior chemical resistance with exceptional sealing performance, making it an optimal choice for demanding industrial applications.

Engineered to perform across a broad temperature range from cryogenic conditions up to +260°C, Durlon® 9645 is suitable for handling aggressive media spanning the full pH spectrum (0 to 14). This advanced material is designed for applications requiring minimal creep and reliable seal integrity, particularly in scenarios where low leakage is critical, and conventional PTFE materials fail to meet the requirements.

Durlon® 9645 is designed with controlled microporosity and a closed-cell structure, delivering excellent compressibility and reliable sealability, even at low bolt torque. The compressible PTFE surface layers make Durlon® 9645 ideal for warped, pitted, or scratched flanges, as the microcellular layer conforms effectively to surface irregularities.

The rigid PTFE core minimizes cold flow and creep, significantly enhancing durability and long-term performance. It also improves handleability and simplifies installation, particularly on large-diameter flanges or in hard-to-reach locations. Durlon® 9645 is an excellent choice for low torque applications, such as glass-lined flanges and equipment, where traditional solutions often struggle to perform.

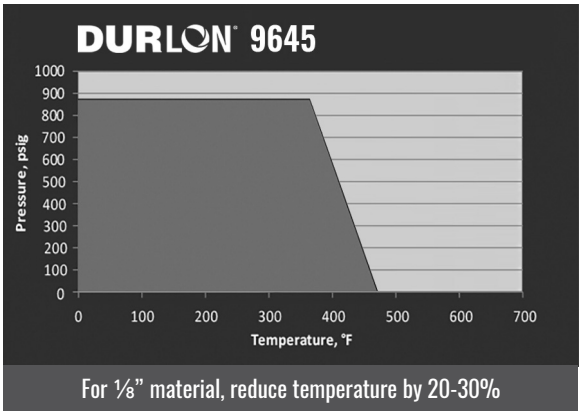
Moreover, Durlon® 9645 is compatible with a wide range of chemicals, including strong acids and aggressive caustics, ensuring versatility across various industries. This material is also a superior alternative to envelope gaskets, offering robust sealing performance with added durability and ease of use.

INDUSTRY APPLICATIONS:

- Chemical Processing
- Food & Beverage
- General Industry
- Marine
- Mining
- OEM Services
- Oil & Gas
- Pharmaceutical
- Power Generation
- Pulp & Paper
- Water & Wastewater

Physical Properties	
Color	White
Material	Modified PTFE with rigid PTFE core
Temperature: Min Max	-260°C (-436°F) 260°C (500°F)
Pressure, Max, bar (psi)	60 (870)
Density, g/cc (lbs/ft^3) ASTM 1315	1.3 (81)
Compressibility, % DIN 3535-6	>44
Recovery, % DIN 3535-6	>6.3
Creep, % DIN 3535-6	<26
Leakage, mg·s^{-1}·m^{-1} DIN 3535-6	<0.002
pH Range	0-14

Gasket Factors	1/8"
G_b psi (MPa)	501 (3.45)
a	0.288
G_s psi (MPa)	9.237 (0.06)



For 1/8" material, reduce temperature by 20-30%

Certifications	
FDA	Conforms to the requirements of 21 CFR 177.1550 for food and drug contact
TA-Luft (VDI Guideline 2440)	Approved Material

Note: ASTM properties are based on 1/16" sheet thickness, except ASTM F38 which is based on 1/32" sheet thickness. This is a general guide only and should not be the sole means of accepting or rejecting this material. The data listed here falls within the normal range of product properties, but should not be used to establish specifications limits nor used alone as the basis of design. For applications above Class 300, contact our technical department.

Warning: Durlon® gasket materials should never be recommended when both temperature and pressure are at the maximum listed. Properties and applications stated are typical. No applications should be undertaken by anyone without independent study and evaluation for suitability. Never use more than one gasket in one flange joint and never reuse a gasket. Improper use or gasket selection could cause property damage and/or serious injury. Data reported is a compilation of field testing, field service reports and/or in-house testing. While the utmost care has gone into publishing the information contained herein, we assume no responsibility for errors. Specifications and information contained within are subject to change without notice. This edition cancels and obsoletes all previous editions.

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