**GORE Universal Pipe Gasket**

Finally, a universal gasket for process piping. Designed to meet the needs of different piping materials, these gaskets are ideal for standardizing across steel, glass-lined steel, and fiber-reinforced plastic (FRP) systems. Lowers total system sealing costs and simplifies inventory stocking requirements.

**GORE-TEX* Series 300 Gasket Tape**

Multidirectionally expanded PTFE gasket tape for large-diameter steel piping and equipment. It can be fastened quickly, installs easily, and reduces expensive material scrap. Because it is customized at installation, it eliminates long lead times and minimizes gasket inventories. With superior sealing reliability and longer life, thin chemical-resistant tape reduces overall sealing costs.

**GORE™ GFO® Fiber Packing**

Incomparable compression pump packing that outlasts virtually any other packing it replaces. Disipates frictional heat and runs cool, even after extended periods of continuous operation at shaft speeds to 4,300 rpm (21.8 m/s). Easy to install and remove, it never gets hard or brittle. Look for the GFO® name right on the packing.

**GORE GR® Sheet Gasketing**

Gain the benefits of PTFE gasketing without the problems of creep and cold flow. Unmatched in sealing reliability, this unique product provides a level of high temperature and blowout resistance that is superior to any other PTFE gasket. Highly conformable, it compresses into an extremely tough gasket that seals tight. It is ideal for sealing steam pipe and equipment flanges across a range of aggressive fluids.

**GORE-TEX* Series 600 Gasket Tape**

A form-in-place gasket for glass-lined equipment that guards against premature gasket failure. Unlike PTFE envelope gaskets, it won't degrade due to chemical attack, ensuring a tight, long-lasting seal. Made from 100% multi-directionally expanded PTFE, the entire gasket is chemically inert. It conforms to common glass-lined flange imperfections, yet maintains dimensional stability. Plus installation is quick and easy.

**GORE SEQUEL® Packing**

Pure white pump packing that meets FDA requirements. It's ideal for food processing, pharmaceutical, and other color-sensitive applications. It controls excessive leakage, while providing superior thermal conductivity and exceptionally long service life due to its ability to run cool with a very low coefficient of friction.

**GORE-TEX® TriGuard® Gasket**

Seals fragile pipe flanges with low bolt load. It seals tight and stays tight, even with varying flange conditions. Designed for low stress-to-seal flanges, the gasket is unaffected by most aggressive chemicals. It's ideal for contamination services and highly permeable fluids, including chlorine and monomer service.

**GORE-TEX® Gasket Tape**

A full-face strip-type gasket under 2 inches (50.8 mm) wide for smooth, flat, rectangular sealing surfaces or for narrow sealing surfaces. Easily compressed to an extremely thin profile, while requiring only minimal compression to seal. Ideal for equipment with tight tolerances.

**GORE-TEX® Valve Stem Packing**

A pliable, self-lubricating packing that eliminates stem wear and lasts longer. This continuous-length packing is easy to install and forms a cohesive cylinder when compressed, eliminating the need to cut and form rings.

**GORE ONE-UP® Pump Diaphragm**

GORE ONE-UP® pump diaphragms are suitable for use with most chemicals, in temperatures ranging from 60°F to 200°F (4.4°C to 93.3°C).
APPLICATIONS

KEY

A GORE™ Universal Pipe Gasket
B GORE-TEX GR™ Sheet Gasketing
C GORE-TEX® TriGuard™ Gasket
D GORE-TEX® Joint Sealant
E GORE-TEX® Series 300 Gasket Tape
F GORE-TEX® Series 600 Gasket Tape
G GORE-TEX® Gasket Tape
H GORE™ GFO® Fiber Packing
I GORE™ SEQUEL® Packing
J GORE-TEX® Valve Stem Packing
K GORE™ ONE-UP® Pump Diaphragm
L GORE™ High-Resilience Tubing
GASKETING FOR PIPE FLANGES

Key Features
- Chemically inert
- Soft & conformable
- Dimensionally stable
- High tensile strength
- Resistant to creep & cold flow

Key Benefits
- Seals irregular flanges
- Retains stress; minimum retorque
- Sealing reliability

Ideal For Practically All Gasketing Applications
GORE-TEX GR® sheet gasketing is made from 100% expanded PTFE. Because it is dimensionally stable, yet conformable, it is ideal for real-world flange conditions.

GORE-TEX GR® sheet gasketing has the benefits of conventional PTFE sheet with significantly less creep and cold flow than is commonly associated with that material. It conforms to rough sealing surfaces, yet compresses into an extremely tough gasket that makes a tight, long lasting seal.

GORE-TEX GR® Style R sheet gasketing is a more rigid version, with a six-fold increase in bend resistance. This makes gasket positioning easier in large flanged openings or where gaskets must be positioned in hard-to-reach places.

Technical Data
Material:
100% expanded PTFE, with multi-directional strength.

Temperature Range:
-450°F to 600°F (−268°C to 315°C)

Chemical Resistance
Resistant to all media in range of pH 0–14, except molten alkali metals & elemental fluorine, particularly at elevated temperatures and pressures.

Operating Pressure:
Vacuum to 3000 psig (200 bar)

Stability:
Not subject to aging and can be stored indefinitely.

Safety:
Complies with FDA 21 CFR 177.1550 (PTFE) food requirements.
### GORE-TEX GR® SHEET GASKETING

Gasket for pipe flanges

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### Reduces creep and retorquing

Due to the unique structure of the gasketing material, GORE–TEX GR® sheet gaskets are highly resistant to creep relaxation. They contain no binders, fillers or additives. Independent third-party testing and years of field usage confirm that GORE–TEX GR® gaskets exhibit less creep. The result is high reliability in service.

### Properties

<table>
<thead>
<tr>
<th></th>
<th>GORE–TEX GR® Sheet Gasketing</th>
<th>GORE–TEX GR® Style R Sheet Gasketing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stress to Seal:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32 rms surface</td>
<td>2,800 psi (19 MPa)</td>
<td>2,850 psi (20 MPa)</td>
</tr>
<tr>
<td>30 psig (2 bar) air</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creep Relaxation:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MTI−ATRS % @ 200°F (93°C)</td>
<td>1/16&quot; (1.6 mm)= 7% 1/8&quot; (3.2 mm)= 30% 1/16&quot; (1.6 mm)= 35% 1/8&quot; (3.2 mm)= 53%</td>
<td>1/16&quot; (1.6 mm)= 21% 1/8&quot; (3.2 mm)= 38% 1/16&quot; (1.6 mm)= 41% 1/8&quot; (3.2 mm)= 58%</td>
</tr>
<tr>
<td>% @ 400°F (204°C)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Pressure Scalability:</td>
<td>1/16&quot; (1.6 mm)= 7 x 10⁻⁴ 1/8&quot; (3.2 mm)= 6 x 10⁻⁴ 1/4&quot; (6.4 mm)= 5 x 10⁻⁴</td>
<td>1/16&quot; (1.6 mm)= 7 x 10⁻⁴ 1/8&quot; (3.2 mm)= 6 x 10⁻⁴</td>
</tr>
<tr>
<td>PVRC−ROTT mg/sec</td>
<td></td>
<td></td>
</tr>
<tr>
<td>800 psig (54 bar) helium gas</td>
<td>1/16&quot; (1.6 mm)= 7 x 10⁻⁴ 1/8&quot; (3.2 mm)= 6 x 10⁻⁴ 1/4&quot; (6.4 mm)= 5 x 10⁻⁴</td>
<td>1/16&quot; (1.6 mm)= 7 x 10⁻⁴ 1/8&quot; (3.2 mm)= 6 x 10⁻⁴</td>
</tr>
<tr>
<td>3,000 psi (21 MPa) surface stress</td>
<td>1/16&quot; (1.6 mm)= 7 x 10⁻⁴ 1/8&quot; (3.2 mm)= 6 x 10⁻⁴ 1/4&quot; (6.4 mm)= 5 x 10⁻⁴</td>
<td>1/16&quot; (1.6 mm)= 7 x 10⁻⁴ 1/8&quot; (3.2 mm)= 6 x 10⁻⁴</td>
</tr>
<tr>
<td>Maximum Surface Stress:</td>
<td>1/16&quot; (1.6 mm) &gt; 40,000 (270) 1/8&quot; (3.2 mm) &gt; 25,000 (172)</td>
<td>1/16&quot; (1.6 mm) &gt; 20,000 (138) 1/8&quot; (3.2 mm) &gt; 20,000 (138)</td>
</tr>
<tr>
<td>PVRC−ROTT/Crush psi (MPa)</td>
<td>1/16&quot; (1.6 mm) = 1/8&quot; (3.2 mm) = 1/4&quot; (6.4 mm)</td>
<td>1/16&quot; (1.6 mm) = 1/8&quot; (3.2 mm) = 1/4&quot; (6.4 mm)</td>
</tr>
<tr>
<td>Standard Thicknesses:</td>
<td>1/32&quot; (1 mm) 1/16&quot; (1.6 mm) 1/8&quot; (3.2 mm) 1/4&quot; (6.4 mm)</td>
<td>1/16&quot; (1.6 mm) 1/8&quot; (3.2 mm)</td>
</tr>
<tr>
<td>Available Sizes:</td>
<td>60&quot; x 60&quot; sheet (1,524 mm x 1,524 mm) Cut gaskets</td>
<td>60&quot; x 60&quot; sheet (1,524 mm x 1,524 mm) Cut gaskets</td>
</tr>
</tbody>
</table>

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### Contact us for more information

Detailed selection criteria, technical assistance and installation guidelines are available from your local authorized Gore distributor or the application engineers at W. L. Gore & Associates, Inc. (800-654-4229). Visit us at www.gore.com/sealants.

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**Authorized Distributor**

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**USA/Canada / Far East / Australia / Latin America / S. America**

**W. L. Gore & Associates, Inc.**

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Elkton, MD 21922-1488 USA

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Fax: 410-392-4817

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**Europe / Middle East / Africa**

**W. L. Gore & Associates, GmbH**

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D-85640 Putzbrunn GERMANY

Tel: 49 (0) 89 46 12-0

Fax: 49 (0) 89 46 12-2300

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GOER-TEX® JOINT SEALANT

Sealing with Certainty™

The Most Dependable Joint Sealant

GOER-TEX® joint sealant, the original form-in-place gasketing, is engineered for the reliable sealing of large, complex or damaged flanges. Made from 100% expanded PTFE, this gasketing material, when compressed, forms a thin yet strong, durable gasket that is highly resistant to creep and cold flow. The seal remains tight and rarely needs retorquing. And, installation is easy — just peel off the adhesive backing, apply to surface, and overlap the ends.

GOER-TEX® joint sealant minimizes the potential for leaks, process disruption, and lost production. It reduces maintenance time, safety risks, and the possibility of catastrophic failure. It is the most reliable means of optimizing long-term system performance.

From the inventors of expanded PTFE, GOER-TEX® joint sealant is backed by thirty years of industry success, ongoing improvements, and technical support.

Technical Data

Material
100% expanded PTFE

Temperature Range
-450°F to +600°F (-268°C to +315°C)

Operating Pressure
Vacuum to 3,000 psig (200 bar)

Chemical Resistance
Resistant to all common chemicals in 0-14 pH range, except molten alkali metals and elemental fluorine.

Tensile Strength
2,000 psi (13,790 kPa) (ASTM F-152)

Compressibility
55-80% (ASTM F-36)

Sealability
0.13 ml/hr (ASTM F-37-B [30 psig/2 bar-air])
M=1.5; Y=2,500 psi

Creep Relaxation
40% (ASTM F-38)

Key Features

• 100% expanded PTFE
• Chemically inert, temperature-resistant
• Ideal for large, complex or damaged surfaces
• No wasteful scrap
• Resistant to creep and cold flow

Key Benefits

• Low stress to seal
• Easy to install
• Extremely tight seal
• Outstanding versatility
• Reliable sealing performance
• Lowers total sealing system cost

FORM-IN-PLACE GASKETING FOR LARGE-DIAMETER FLANGES
Low Stress to Seal

Since GORE-TEX® joint sealant has a very low stress-to-seal requirement, it makes an effective gasket on more delicate assemblies such as plastic, FRP or graphite. And, GORE-TEX® joint sealant requires less stress to seal on rough flange surfaces.

Available Sizes

**Thicknesses:** 1 mm, 1/8 in. (3 mm), 3/16 in. (5 mm), 1/4 in. (7 mm), 3/8 in. (10 mm), 1/2 in. (14 mm), 5/8 in. (17 mm), 3/4 in. (20 mm), 1 in. (25 mm).

**Lengths:** Spool lengths from 15 ft. (4.57 m) to 1,000 ft. (304.8 m).

Outstanding Versatility

GORE-TEX® joint sealant withstands temperatures from -450°F to +600°F (-268°C to +315°C), seals internal pressures from full vacuum to 3,000 psig (200 bar) with a tested P x T factor of 1.8 million, and is unaffected by most chemicals (except molten alkali metals and elemental fluorine). It’s ideal for cryogenic applications and is FDA/USDA-suitable for use in food processing and pharmaceutical industries. You can use it just about anywhere. And, it lasts indefinitely, when used within its operating parameters.

Tight Seal

Soft and conformable, GORE-TEX® joint sealant forms a thin, wide seal when compressed in the flange. The conformability of the material allows the gasket to easily fill in all the areas of micro-deviation across the flange surface, for an incredibly tight seal.

Further Information/Ordering

Detailed selection criteria, technical assistance, and installation guidelines are available from your local authorized Gore distributor or the application engineers at W. L. Gore & Associates, Inc. (800-654-4229).


Quality Assurance

All manufacturing and quality control processes for GORE-TEX® joint sealant conform to ISO 9002, registered facility 30332.
**Lower sealing system cost**

GORE-TEX® Series 300 gasket tape helps to achieve greater sealing efficiencies with large steel piping and equipment. Unlike sheet gasketing, it can be quickly formed in place, installs easily, and reduces expensive material scrap.

GORE-TEX® Series 300 gasket tape is the ideal choice for sealing large diameter flanges. Made from 100% multi-directionally expanded PTFE, it combines superior sealing performance and efficiency. Tighter and more creep resistant than other gasketing alternatives, it also has the advantages of a form-in-place sealing solution. Without “donut hole” scrap from cutting, it is often more cost effective. Because it is customized at installation, long lead times are eliminated and gasket inventories are reduced.

Conformable and highly compressible, this tape forms a very tight seal. Strong multi-directionally expanded PTFE fibers give excellent creep resistance for a long lasting seal that withstands virtually any chemical process.

**Technical Data**

**Material:**
100% expanded PTFE, with multi-directional strength.

**Temperature Range:**
-450°F to 600°F (-268°C to 315°C)

**Chemical Resistance:**
Chemical resistance to all media pH 0-14, except molten alkali metals and elemental fluorine.

**Operating Pressure**
Vacuum to 1000 psig (68 bar)

**Safety:**
Complies to FDA 21 CFR 177.1550 (PTFE) requirements for food

**Key Features**
- Made from 100% multi-directionally expanded PTFE
- Chemically inert
- Temperature resistant
- Highly conformable
- Dimensionally stable
- Resists creep & cold flow
- 1/16” & 1/8” thicknesses replace sheet gasketing
- Easy to install

**Key Benefits**
- Installs quickly around shaft assemblies
- Lowers inventory, delivery and installation costs
- Unaffected by virtually all common chemicals
- Superior sealing reliability & longer gasket life
- Lower total sealing cost
Typical Properties

Compressibility/Recovery
ASTM F-36 40/17%

Sealability
ASTM F-37-B
30 psig (2 bar-air) 0.10 ml/hr
10 psig (0.7 bar-liquid) 0.004 ml/hr

Creep Relaxation
ASTM F-38
22 hrs. @ 73ºF (23ºC) 18%
22 hrs. @212ºF (100ºC) 32%

ATRS
@200ºF (93ºC) 30%
@400ºF (204ºC) 53%

Maximum Surface Stress
ROTT (Crush) 25,000 psi
Internal Operating Pressure
(HOBT2) @ 600ºF (315ºC) 750 psi

ASTM design constants
m=2.0, y=2800 psi

PVRC design constants
G_b=310 psi, G_s=3.21, a=0.352

Available Sizes

<table>
<thead>
<tr>
<th>Standard Nominal Thicknesses</th>
<th>Standard Nominal Widths</th>
<th>Standard Lengths</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/16&quot; (2 mm)</td>
<td>3/8&quot; (10 mm)</td>
<td>25 ft.</td>
</tr>
<tr>
<td>1/8&quot; (3 mm)</td>
<td>1/2&quot; (15 mm)</td>
<td>50 ft.</td>
</tr>
<tr>
<td></td>
<td>3/4&quot; (20 mm)</td>
<td>100 ft.</td>
</tr>
<tr>
<td></td>
<td>1&quot; (25 mm)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1-1/2&quot; (40 mm)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2&quot; (50 mm)</td>
<td></td>
</tr>
</tbody>
</table>

Installation is simple

Completely clean the sealing surfaces to remove any dirt, corrosion, oil, or leftover gasket material. Cut one end of the gasketing using the skiving technique shown in Figure A. Remove the adhesive backing and position the tape at the center of the effective sealing width, placing the skive just inside a bolt hole. Fit the gasket tape around the entire flange circumference. Lay the tape across the skive, completing with a second cut as shown in Figure B, allowing 1" of overlap. Horizontally cut off the excess, leaving a total thickness of approximately 120% of the original. At least 3 progressive torque sequences in a star or 180º method should be used. Lastly, perform a circular torque check to ensure a tight, long-lasting seal.

Installation Guidelines
- Tape Width = Approx. 75% of effective sealing surface.
- Thickness = 1/8" for most flanges (up to 0.040" flange deviation). 1/16" for equipment with tight tolerances. For greater flange deviation, please contact Gore for a recommendation.

Quality Assurance
Manufacturing and quality control processes conform to ISO 9002, registered facility 30332.

Contact us for more information
Call 1-800-654-4229 or visit www.gore.com/sealants
Whenever Compressed Thickness is Critical

GORE-TEX® gasket tape is a flat, thin, form-in-place gasketing material. It can be used to form a full-face strip-type gasket under 2 inches (50.8 mm) wide for smooth, flat, rectangular sealing surfaces or for narrow sealing surfaces. It easily compresses into an extremely thin profile, and requires only minimal compression to seal. GORE-TEX® gasket tape is an ideal choice when compressed thickness is critical, and perfect for equipment with tight tolerances.

Available in a variety of widths and thickness, this gasketing can be shaped easily and quickly, without precutting, to fit any ring-type or full-face gasket application. GORE-TEX® gasket tape, with self-adhesive backing, can be used anywhere you need a flat, thin, engineered gasket.

Technical Data

<table>
<thead>
<tr>
<th>Material</th>
<th>100% expanded PTFE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature Range</td>
<td>-450°F to +600°F (-268°C to +315°C)</td>
</tr>
<tr>
<td>Operating Pressure</td>
<td>Vacuum to 3,000 psig (200 bar)</td>
</tr>
<tr>
<td>Chemical Resistance</td>
<td>Resistant to all common chemicals in the 0-14 pH range, except molten alkali metals and elemental fluorine.</td>
</tr>
<tr>
<td>Compressibility</td>
<td>52% (ASTM F-36)</td>
</tr>
<tr>
<td>Sealability</td>
<td>.03 ml/hr (ASTM F-57-B)</td>
</tr>
<tr>
<td>Operating Pressure</td>
<td>30 psig/2 bar-air.</td>
</tr>
<tr>
<td>Creep Relaxation</td>
<td>32% (ASTM f-38)</td>
</tr>
</tbody>
</table>

Key Features

- Made of 100% expanded PTFE
- Conforms to flange irregularities
- Chemically inert
- Resistant to creep & cold flow
- No wasteful scrap

Key Benefits

- Outstanding versatility
- Low stress to seal
- Easy to install and remove
- Lowers total sealing system cost
Always Fits Just Right
Because it is engineered to exacting width and thickness specifications, GORE-TEX® gasket tape will always fit perfectly on sealing surfaces where compressed thickness or width is critical. It is ideal for any application that has complicated or narrow sealing surfaces, that needs edge-to-edge coverage or that requires full-face gasketing.

Ideal for Original Equipment
GORE-TEX® gasket tape is an engineered form-in-place gasketing material. Because it can fill large surface irregularities, a high grade surface finish is not necessary. Often, this saves time and money. Stress factors can be calculated accurately using conventional methods. You can depend on GORE-TEX® gasket tape for a consistently perfect fit.

Available Sizes

<table>
<thead>
<tr>
<th>Standard Nominal Thickness</th>
<th>Standard Nominal Widths</th>
</tr>
</thead>
<tbody>
<tr>
<td>.010&quot; (.25 mm)</td>
<td>1/2&quot; (13 mm)</td>
</tr>
<tr>
<td>.020&quot; (.50 mm)</td>
<td>3/4&quot; (20 mm)</td>
</tr>
<tr>
<td>.040&quot; (1.0 mm)</td>
<td>1&quot; (25 mm)</td>
</tr>
<tr>
<td>.065&quot; (1.5 mm)</td>
<td>2&quot; (50 mm)</td>
</tr>
<tr>
<td>.120&quot; (3.0 mm)</td>
<td></td>
</tr>
</tbody>
</table>

Easy to Install and Remove
Maintenance time is kept to a minimum during both installation and replacement. The self-adhesive backing makes GORE-TEX® gasket tape quick and easy to apply, even on irregular surfaces and those that are slightly oily or wet. To make a gasket, simply remove the backing, apply to flange, cut to length and cross over the ends — there’s never any wasteful scrap. For full-face gasketing, the bolt holes can be punched out after application with a hole punch or any sharp object. When it’s time to remove, it usually peels cleanly off the flange with no scraping required.

Outstanding Versatility
GORE-TEX® gasket tape is effective at temperatures ranging from -450°F to +600°F and is compatible with all chemicals in the 0-14 pH range (except for elemental fluorine and molten alkali metals). Its high tensile strength allows it to withstand internal pressures up to 3,000 psig (1,800,000 P x T factor). The material is non-contaminating and non-aging. It is perfectly suited for cryogenic applications and is FDA/USDA accepted for use in the food and pharmaceutical industries.
UNIVERSAL GASKET FOR CHEMICAL PROCESS PIPING

GORE™ Universal Pipe Gasket

Sealing with Certainty™

Key Features
- 100% expanded PTFE with multi-directional strength
- Seals at lowest bolt load
- Chemically inert
- Temperature resistant
- Highly conformable
- Dimensionally stable
- Resists creep and cold flow
- Blowout resistant

Key Benefits
- Seals all types of standard piping
- Standardize: One gasket system-wide
- Protects against use of wrong gasket
- Lowers chemical process emissions
- Seals damaged or misaligned flanges
- Seldom needs retorquing
- Superior sealing reliability and longer gasket life
- Lowers total sealing cost

Technical Data

Material
100% expanded PTFE, with multi-directional strength.

Temperature Range
-450°F to 600°F (-268°C to 315°C)

Chemical Resistance
Resistant to all media in the 0-14 pH range, except molten alkali metals and element fluorine, particularly at elevated temperatures and pressures.

Operating Pressure
Vacuum to 3000 psig (200 bar)

Stability
Not subject to aging and can be stored indefinitely.

Safety
Complies with FDA 21 CFR 177.1550 (PTFE) food requirements.

Compressibility
ASTM F-36 57%

For All Standard Flanges

GORE™ Universal Pipe Gaskets (Style 800) are used to seal all types of flanges in chemical process piping. Designed to meet the needs of many different piping materials, they are ideal for standardizing gasket material across the steel, glass-lined steel, and FRP systems, whenever a non-metallic gasket can be used.

Unaffected by even the most aggressive chemicals, Style 800 gaskets combine all the properties of expanded PTFE with exceptional scalability. Engineered to deliver superior bolt load retention, these gaskets exhibit exceptional creep resistance for reliable sealing of steel piping flanges. And due to their unique design, they provide the lowest stress-to-seal for application in the most fragile plastic and glass-lined flanges.

Look to GORE™ Universal Pipe Gaskets (Style 800) for exceptional performance in three important areas: conforming to irregular surfaces, helping to protect flanges, and seal reliability. With over 25 years of manufacturing and technical experience, depend on GORE gaskets when you need the highest level of confidence.

Typical Applications
- Steel flanges
- Glass-lined steel flanges
- FRP flanges
- PTFE and rubber-lined flanges
GORE™ Universal Pipe Gaskets (Style 800) deliver higher sealing reliability than other PTFE-based gaskets. These Style 800 gaskets have exceptional bolt load retention and creep resistance characteristics, as demonstrated in HALR (High Temperature Aged Load Relaxation) testing.

**Most Reliable Seal**

GORE™ Universal Pipe Gaskets (Style 800) deliver higher sealing reliability than other PTFE-based gaskets. These Style 800 gaskets have exceptional bolt load retention and creep resistance characteristics, as demonstrated in HALR (High Temperature Aged Load Relaxation) testing.

**Sealability**

**Recommended m and Y values**

<table>
<thead>
<tr>
<th>Plastic/FRP (≤290 psig)*</th>
<th>Glass Lined Steel Flanges (≤580 psig)*</th>
<th>Steel Flanges (≤290 psig)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>m</td>
<td>2.5</td>
<td>1.4</td>
</tr>
<tr>
<td>Y</td>
<td>290 psi</td>
<td>725 psi</td>
</tr>
</tbody>
</table>

*for a T3 seal based on data from CETIM, reference report no. 774630/6J1/a

The lower bolt loads needed to seal with the GORE™ Universal Pipe Gasket will support standardization of non-metallic gasket materials in steel, FRP, and glass-lined steel flanges.

**Blowout Safety**

The GORE™ Universal Pipe Gasket (Style 800) delivers improved creep relaxation and higher tensile strength, which makes the gaskets more resistant to blowout. In Hot Blowout testing (HOBT), when compared to a leading filled PTFE material, the GORE™ Universal Pipe Gasket showed superior results. Tested in accordance with HOBT1 and HOBT2 procedures, blowout of the filled PTFE material occurred when the internal pressure reached 1900 psi at 450°F. Style 800 did not experience blowout at 450°F and 2900 psi during the tests; thus the temperature was increased with pressure maintained until blowout did occur at 682°F. The significantly higher blowout resistance of the Style 800 gasket is a result of the improved tensile and mechanical properties achieved with the new technology.

**Installation**

Clean the flange faces and apply the gasket. Tighten to the manufacturer’s recommended torque load for the piping system. Torque tables and installation procedures are available on request. For further assistance, contact Gore Technical Services (800-654-4229).

**Contact us for more information.**

Technical assistance is available from your local authorized Gore distributor or the engineers at W. L. Gore & Associates, Inc. For more information, visit us at www.gore.com/sealants.

**Available Sizes**

ANSI 150 & 300, 1/2" through 24" nominal pipe flanges.
**GORE-TEX® Dynacore™ Gaskets**

**Metal Reinforced**

**Superior Sealing Performance and Blowout Resistance**

**Unsurpassed Cyclical Capabilities**
Constructed of GORE-TEX® expanded PTFE and a corrugated metal insert, GORE-TEX® Dynacore™ gasket is designed to provide superior sealing performance and blowout resistance in high thermal cycling applications. The unique corrugated metal insert provides memory and resilience, just like a spring under compression.

**Enhanced Tightness Characteristics**
With its spring-like “memory”, the gasket requires less stress to seal. Under compression, GORE-TEX® Dynacore™ gaskets ensure high tightness during wide stress variations that occur under extreme temperature and pressure cycling conditions.

**Superior Creep Resistance**
GORE-TEX® Dynacore™ gaskets exhibit the same superior creep resistance as all GORE-TEX GR® sheet gasketing products. Made from a proprietary biaxially expanded PTFE, the material is dimensionally stable.

**Most Demanding Applications**
GORE-TEX® Dynacore™ gaskets are ideal for the most difficult and challenging applications such as digester blow lines, pressure vessels, shell and tube exchangers, and other critical service operations.

**Sealant Technologies**
**Sealing with Certainty™**
Construction Flexibility
Sandwiched between layers of strong, conformable GORE-TEX GR® sheet gasketing, the metallic insert is available in a variety of metals. Since the basic construction is not intended to completely isolate the core from the process fluids, the metal should be selected on the basis of its compatibility with these fluids. In addition to the standard construction, gaskets are available with either a PTFE or a metal envelope. GORE-TEX® Dynacore™ gaskets are available in 1/8” thickness.

Operating Conditions
Temperature Range: -450°F to +600°F (-260°C to +315°C)
Pressure Range: See Blowout Resistance Chart
Chemical Compatibility: Compatibility of metal insert with process fluids should be confirmed

Performance Data
Blowout Resistance (ANSI 9” X 150 Flange)

The blowout temperature of GORE-TEX® Dynacore™ gasketing at three different internal pressures. Note that in all cases, the failure temperature is well above that of other PTFE alternatives and the maximum recommended temperature of 600°F (315°C). Testing performed by TTRL.

Tightness Levels
Independent tests confirm both tightness and enhanced blowout resistance. GORE-TEX® Dynacore™ gasketing exhibits a high level of tightness, even during extreme stress cycling. The maximum tightness capability exceeds 37,000 Tp.

<table>
<thead>
<tr>
<th>Stress</th>
<th>Tightness (Tp)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,000 psi (7 Mpa)</td>
<td>&gt; 101</td>
</tr>
<tr>
<td>3,000 psi (21 Mpa)</td>
<td>&gt; 6,000</td>
</tr>
<tr>
<td>5,000 psi (35 Mpa)</td>
<td>&gt; 10,000</td>
</tr>
<tr>
<td>7,500 psi (51 Mpa)</td>
<td>&gt; 20,000</td>
</tr>
<tr>
<td>10,000 psi (69 Mpa)</td>
<td>&gt; 30,000</td>
</tr>
</tbody>
</table>

Tightness parameter Tp is inversely proportional to leak rate. High values of Tp indicate low leak rates. A 10-fold increase in Tp corresponds to a 100-fold increase in leak rate. Tp, as defined by the PVRC, is the pressure (abs) required to create a 1 mg/sec helium leak in a standard NPS 4” (100 mm) diameter gasket.
**Durable Versatility**

ONE-UP® pump diaphragms, with proprietary PTFE on the wetted side, are a significant advancement over conventional PTFE diaphragms. Considerably stronger, with greater flex life, they provide a dramatic improvement in service life. Satisfaction guaranteed, or purchase price refunded.

Chemical resistance is the property that makes ONE-UP® pump diaphragms so versatile. Suitable for use with most chemicals and in elevated temperatures and pressures, these diaphragms are ideally suited for those general service pumps that are likely to be put to one use today and another tomorrow.

You can expect long, effective service life and reduced maintenance costs with these durable one-piece diaphragms. Strength and chemical resistance make ONE-UP® pump diaphragms perfect for just about all of your pumping requirements.

**Technical Data**

**Material/Construction:**
One-piece composite design with a proprietary 100% PTFE on wetted side.

**Temperature Range:**
Neoprene backing:
14°F to 200°F (-10°C to 93°C)

EPDM backing:
14°F to 280°F (-10°C to 137°C)

Viton backing:
32°F to 350°F (0°C to 176°C)

**Chemical Resistance:**
Chemical resistance to all media in pH 0-14 range, except molten alkali metals and elemental fluorine.

**Flex Life:**
>70MM cycles (ASTM-D-2176, 0.020 in. thick, 0.600 in. wide)

**Impact Strength:**
30.4 ft. lbs./in. (ASTM-D-256, 0.220 in. thick)

**Safety:**
Complies to FDA 21 CFR 177.1550 (PTFE) requirements for food
ONE-UP® PUMP DIAPHRAGMS
For Air Operated Diaphragm Pumps

Field Testing
ONE-UP® pump diaphragms have been extensively field tested in a wide variety of industries including food & beverage processing, pharmaceuticals, paint, solvent and detergent manufacturing and wastewater treatment. Documented case histories show that the average service life is 3.5 times longer than conventional PTFE diaphragms.

Long Service Life
The superiority of the PTFE technology developed by Gore ensures that pump diaphragms will provide extended service life.

Easy Installation
Since the ONE-UP® pump diaphragm is a one-piece design, it is simple to install. Whether it incorporates bolt holes or a perimeter sealing bead, it fits easily into the pump housing without the difficulties associated with installing two-piece diaphragm sets.

Satisfaction Guaranteed
We guarantee your satisfaction. If, on your initial order, you are not completely satisfied with the performance-in-use of the diaphragms, return them to us for a full refund of the purchase price.

Availability
ONE-UP® pump diaphragms are available for the following makes of air operated diaphragm pumps: ALMATEC, ARO, DEPA, BLAGDON, FLOTRONICS, GRACO, VERDER, VERSAMATIC, WARREN RUPP, WILDEN, YAMADA.

Contact us for more information
For further information on availability, ordering, or technical information, call your local authorized Gore distributor or the application engineers at W. L. Gore & Associates, Inc. (800-654-4229). Visit us at www.gore.com.

<table>
<thead>
<tr>
<th>Property</th>
<th>ASTM Method</th>
<th>Sample Dimensions (thickness)</th>
<th>Conventional PTFE (Literature)</th>
<th>Gore PTFE (Test Data)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flex Life (MM cycles)</td>
<td>ASTM-D-2176</td>
<td>0.020 in 0.600 in</td>
<td>4.1</td>
<td>70+*</td>
</tr>
<tr>
<td>Impact Strength (ft lbs/in)</td>
<td>ASTM-D-256</td>
<td>0.220 in</td>
<td>2 – 3.5</td>
<td>30.4</td>
</tr>
<tr>
<td>Tensile Strength (psi)</td>
<td>ASTM-D-638</td>
<td>0.220 in</td>
<td>4000-5200</td>
<td>14920</td>
</tr>
<tr>
<td>Mullins Burst (psi)</td>
<td>ASTM-D-3786</td>
<td>0.020 in</td>
<td>180**</td>
<td>540</td>
</tr>
<tr>
<td>Tensile Creep (1000 hr, 1000 psi)</td>
<td>ASTM-D-2990</td>
<td>0.100 in</td>
<td>20%-30%**</td>
<td>9%-10%</td>
</tr>
</tbody>
</table>

Sample dimensions are given to compare conventional PTFE to Gore’s PTFE for testing purposes and do not represent actual diaphragm dimensions.

*Test was stopped over time **Actual test results for conventional PTFE film.