Texolon™ High-Performance Fluid Sealing Solutions

Engineered for Excellence

EVANTIC®

Beyond Material Science™

Performance Polymers | Engineered Components | Custom Solutions®

Explore Evantic's
precision-engineered material solutions.

Evantic is an industry leader recognized for CNC machining and molding custom, high-performance polymer materials into intricately designed components with complex geometries and tight tolerances.

We seamlessly integrate deep polymer material expertise with world-class product design and engineering and analytical testing support to consistently deliver high-quality, semi-finished shapes and parts at serial production capacities.

This vertically integrated, customer-centric approach includes advanced manufacturing that encompasses the latest technologies and processes, resulting in the production of precision components with exceptional accuracy and repeatability.

Unlock the full potential of your products by partnering with Evantic.

Evantic At a Glance

65+ years of engineered material solutions expertise

Headquarters and R&D Facilities: Houston, Texas

Over **10 million** components produced annually

500+ engineered materials

FIVE North American locations

Over 250,000 square feet of manufacturing capacity

250 dedicated employees **/ 100** skilled machinists

40 manufacturing and fabrication processes

100% of products manufactured in North America

MADE IN THE USA

Comprehensive solutions from high-performance polymer brands

The Evantic family of companies includes our highly regarded Amilon™, Vertec™, Plastolon™, Texolon™, and Chemiseal™ brands that major OEMs have trusted and relied on for decades.

Proudly made in the U.S.A.

Semi-Finished Shapes & Materials

Vertec™
Amilon™

Fluid Handling Products

Texolon™

PTFE Tape & Film

Plastolon™

Custom Sealing Solutions

Chemiseal™

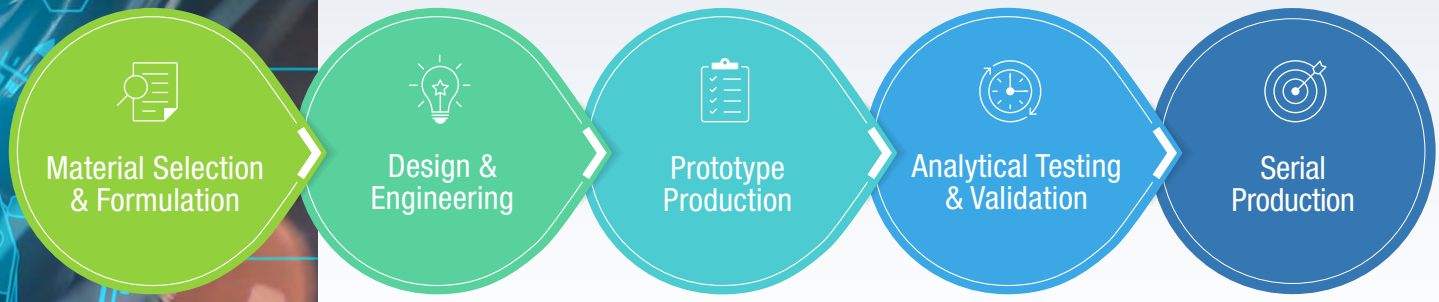
Custom products tailored just for you!

In addition to our robust portfolio of standard products, we offer custom designed and engineered solutions that allow our customers to achieve exacting performance criteria and specifications tailored to their unique applications.

In-house, turn-key solutions

Working with a vertically integrated partner like Evantic offers significant advantages. We have amassed impressive and extensive core competencies so our customers can benefit from the full potential of our end-to-end services. Evantic offers fully equipped production facilities and total control over material formulations, product development, production, post-production, and application testing. All aspects of your project are handled in-house with no outsourcing to ensure superior quality.

Efficiency in motion



Superior quality control that leads to superior finished parts

Evantic is committed to the relentless pursuit of excellence. Our dedication to continuous improvement and the promise to deliver high-quality products and value-added services sets us apart.

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Key markets we serve

Evantic caters to a broad range of industries, from industrial manufacturing to high-tech sectors, delivering comprehensive solutions across the board.

- Aerospace & Defense
- Chemical Processing
- Electronics
- Energy
- Fluid Handling
- Food & Beverage
- Industrial
- Life Sciences (Pharmaceutical & Medical)
- Mechanical Engineering (Industrial Manufacturing)
- Oil & Gas
- Semiconductor
- Water & Wastewater Treatment

1-855-686-8600
sales@evantic.com

Texolon™ fluid sealing and transport technologies:
Trusted performance. Proven reliability.

For over 30 years, Evantic's **Texolon® PTFE gasket and related fluid management solutions** have set the standard for high-performance sealing in the world's most demanding industries. Our advanced sealing solutions are engineered to provide superior chemical resistance, extreme temperature stability, and long-lasting reliability across a wide range of applications.

Whether in chemical processing, semiconductor manufacturing, pharmaceuticals, food & beverage, oil & gas markets, or industrial markets, Evantic delivers innovative materials, proven products, and customized solutions that ensure unmatched sealing performance for your critical operations.

Seal your success with Texolon®. Explore our PTFE solutions today!

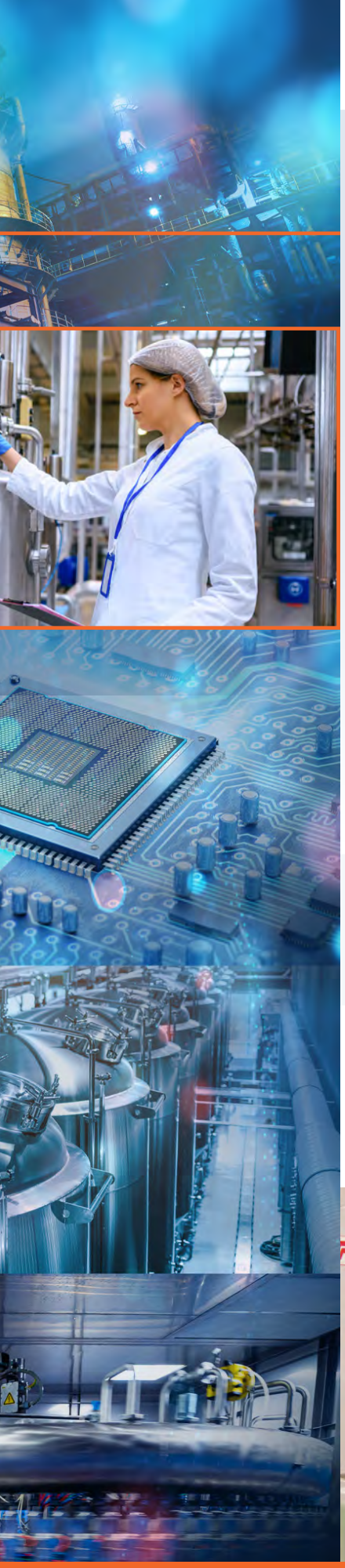
Texolon® PTFE products:
Engineered for high performance

Evantic is a market leader in the manufacture of industrial PTFE sealing products, offering a full range of non-metallic gaskets, diaphragms, bellows, and seals designed to withstand aggressive chemicals, high pressures, and extreme temperatures. Our premium materials, proprietary molding processes, and state-of-the art precision CNC machining result in sealing solutions that excel in demanding applications and high-stakes industries.

Why choose Texolon® non-metallic sealing solutions?

- **Outstanding chemical resistance** – Endures resistance to a broad range of chemicals
- **Superior temperature resistance** – Performs reliably across a wide operating temperature range: cryogenic to 500°F (260°C)
- **Exceptional purity** – Assures ideal performance for ultrapure fluid handling applications
- **Exceptional dimensional stability** – Minimizes the risk of failure over time
- **Low permeability** – Provides long-term sealing integrity for gases and liquids
- **FDA and USP Class V compliant** – Affirms suitability for use in food & beverage and pharmaceutical industries

Our engineered solutions are designed to meet the most stringent performance requirements, providing reliability where failure is not an option.



Custom Texolon® Fluid Sealing Solutions by Evantic

Designed to perform in the most challenging applications and environments

At Evantic, we go beyond off-the-shelf PTFE solutions. Our Texolon® products can be customized to meet the unique demands of your application From precision CNC machining to specialized finishing, we engineer every component with exacting detail.

Our team works closely with you to develop custom PTFE materials that enhance performance, optimize durability, and withstand extreme conditions. Whether you need unique design configurations, intricate geometries, or a specific surface treatment, we deliver precision-crafted solutions tailored to your specifications.

Find the right sealing solution for your application.

With a comprehensive selection of PTFE fluid management solutions, Evantic's engineering experts are ready to help you identify the best sealing products for your specific challenges.

Contact our experts to learn more.

1-855-686-8600

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Discover our full range of Texolon® PTFE sealing solutions at: www.evantic.com/resourcecenter

Texolon™

Chemical-Resistant, Compression-Molded PTFE Gaskets

Combining exceptional sealing performance and chemical resistance to ensure the utmost protection in aggressive environments.

MEDIA USE: LIQUID AND GAS

- Caustic Acids
- Solvents
- Hydrocarbons
- Chlorine
- Steam & Acid Transfer
- Black liquor and molasses
- Bromination
- Air Actuation

INDUSTRIES

- Fluid Handling
- Food & Beverage
- Chemical Processing
- Pharmaceutical
- Oil & Gas
- Power Generation
- Water & Wastewater Treatment
- Semiconductor
- Mining & Metals

Reliability You Can Trust

Exceptional chemical resistance: Texolon PTFE gaskets provide outstanding resistance to a broad range of chemicals, including acids, bases, and solvents.

Excellent sealing performance: You can expect reliable sealing with a minimal compression set, providing a tight seal even under varying pressure conditions.

Wide temperature tolerance: These gaskets will maintain their integrity and performance at temperatures from -400°F (-240°C) to 500°F (260°C), withstanding thermal cycling and extreme heat without degrading.

Durability and longevity: Texolon PTFE gaskets are highly durable and resistant to wear and tear, leading to longer service life and reduced replacement frequency.

Reduced creep: Through several key mechanisms, including their high modulus of elasticity, stable polymer structure, and high-quality manufacturing, our gaskets reduce creep in pipes and pipe flanges.

Non-stick properties: The non-stick surface of PTFE gaskets prevents buildup and contamination, and allows gasket to easily release from flange during disassembly.

Low permeability: PTFE's low permeability to gases and liquids ensures efficient contamination, allowing easy release from flanges during disassembly.

FDA Food-grade compatibility: Our PTFE gaskets can be produced to meet FDA food-grade compatibility: qualifying them for use in the food and beverage industry.

IDENTIFICATION ON EVERY GASKET:

- Texolon manufacturer identifier
- UPG product identifier
- Gasket size and pressure classification
- Governing standard (example: ASME)

Texolon™

PTFE Skived Gasket Sheets

Texolon premium skived virgin PTFE sheets offer better mechanical and electrical properties compared to standard general-purpose grades. These properties can be further enhanced when the material is engineered with modified PTFE resins.

Texolon™ PTFE Skived Gasket Sheets

Material	
Premium-grade, high-performance PTFE using virgin or modified base resins, with raw filler materials that meet ASTM D4894.	
Specifications	
Standard thickness:	0.0010″ (0.025 mm) to .375″ (9.525 mm)
Standard width:	Up to 60″ (157.48 cm)

Meets ASTM 3308 Type 1, AMS3652, AMS3661, and AMS3662 standards

PTFE Gasket Sheet Compounds Available

Grade
PTFE Unfilled Gasket Material (100% Virgin PTFE)
PTFE Gasket Material filled with Glass Microspheres (5% to 30%)
PTFE Gasket Material filled with Carbon Fiber (10% to 35%)
PTFE Gasket Material filled with Graphite (5% to 20%)
PTFE Gasket Material filled with Bronze (5% to 25%)
PTFE Gasket Material filled with Stainless Steel (5% to 20%)
Expanded 100% Virgin PTFE Materials
FDA Approved Materials

Carbon-filled PTFE gasket material available for hydrogen flouride applications in chemical processing

SURFACE MODIFICATION

Etched surfaces are optional on one or both sides to improve bonding with other materials like rubber, metal, or plastics.

Contact our experts to learn more.

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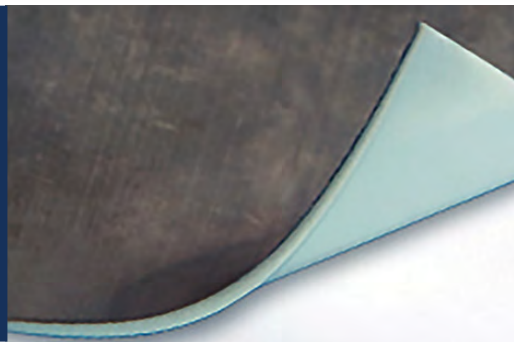

Texolon™

PTFE Pipe Flange Gaskets

Stainless Steel PTFE Encapsulated Gaskets

Our proprietary PTFE gaskets feature a perforated **304-grade stainless-steel reinforcement** core fully encapsulated for trouble-free sealing on GLS, FRP, and steel flanges in high-pressure, corrosive environments.

The Texolon gasket undergoes a unique **compression molding** and **oven-sintering** process that stabilizes the seal face, significantly improving cold flow and blowout resistance.

Texolon™ PTFE Pipe Flange Gaskets

Specifications	
Standard thickness:	0.093″ (1.57 mm) to 0.125″ (3.175 mm)
Standard O.D. range:	1/2″ (1.27 cm) to 52″ (132.08 cm)
Operating temperature range:	-400°F (-240°C) to +500°F (260°C)
Operating pressure:	Up to 2,510 psi (17.3 MPa)

Benefits you'll gain with Texolon's proprietary gasket technology

- 100% void-free virgin PTFE or modified grade PTFE materials
- Non-porous
- Leak-free and bubble-tight to provide maximum protection
- Zero corrosion rate
- No flange bolt retorquing after installation to maintain a leak-free seal
- 50% creep reduction and cold flow in pipes and pipe flanges
- Metal insert design provides critical blowout-proof protection
- Over one-third less stud loss than standard virgin and glass-filled PTFE gaskets

OFFERED AS FULL FACE AND RING FLANGE GASKETS

- ANSI Pressure Class 150LB and 300LB flanges
- ASME B16.5 compliant

Contact our experts to learn more.

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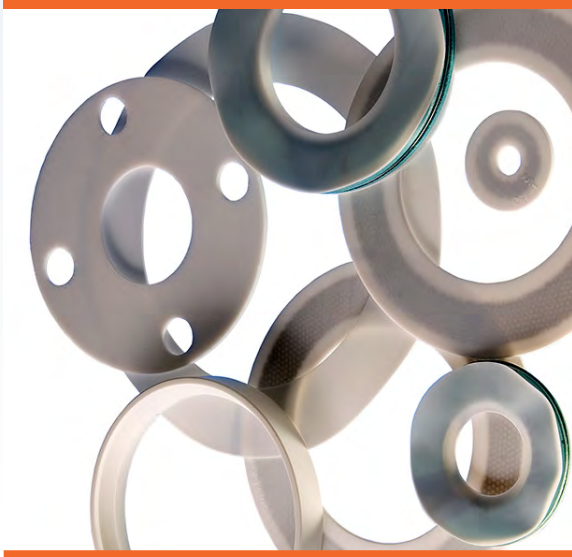


Texolon™

PTFE Blocking Paddle Gaskets

Static-Dissipative

Our **static-dissipative** PTFE molded fluid blockers feature **304-grade stainless-steel encapsulated** gaskets that dissipate static through a paddle handle, extending 2" above the flange. The paddles come pre-drilled for grounding hardware and self-seat easily, eliminating the need for a separate gasket.

Texolon™ PTFE Blocking Paddle Gaskets

Specifications		
Fluid pipeline blocker sizes	**Size**	**I.D. x O.D.**
Standard ring size range:	0.75" (1.9 cm)	0.687" x 2.62" (1.74 cm x 6.65 cm)
	1.75" (4.44 cm)	1.687" x 4.125" (4.28 cm x 10.47 cm)
	2.75" (6.98 cm)	2.687" x 5.375" (6.82 cm x 13.65 cm)
	3.75" (9.52 cm)	3.687" x 6.875" (9.36 cm x 17.46 cm)
	5.625" (14.28 cm)	5.500" x 8.750" (13.97 cm x 22.22 cm)
Standard fluid blocker O.D.:	1.875", 2.250", 2.625", 3.375", 4.125", 5.375", and 6.875" (4.76 cm, 5.71 cm, 6.66 cm, 8.57 cm, 10.47 cm, 13.65 cm, and 17.46 cm)	

Lined pipe applications

- **ANSI Flange Pressure Class 150 LB**
- **AMSE B16.21 compliant**

SPECIALLY DESIGNED FOR IN-LINE FLUID BLOCKING

- No gasket required
- Blowout protection
- Operating temperature range from -400°F (-240°C) to +500°F (260°C)
- Chemically inert and resistant to all solvents, caustics, and sulfates
- Custom sizes available

Texolon™
PTFE Envelope Gaskets

Texolon asbestos-free jacketed gaskets feature our renowned PTFE envelope or jacket with a proprietary filler, available in standard ring and full-face gasket configurations.

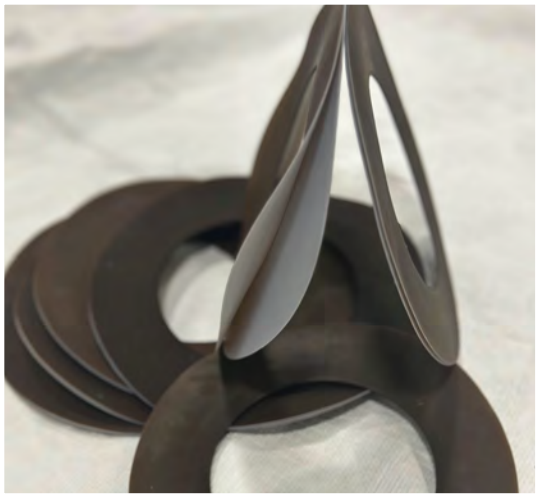
Also available with metallic rings and non-metallic inserts.

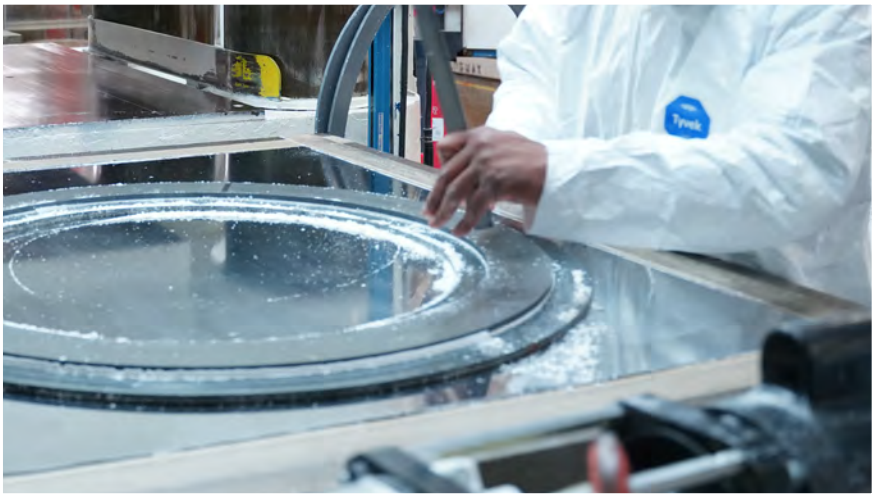
INDUSTRIES

- Food & Beverage
- Pharmaceutical Production
- Chemical Processing
- Oil & Gas

Texolon™ PTFE Envelope Gaskets

Applications	
ANSI flanges or process equipment with equal bolting – 125 to 300 psi	
Nominal pipe sizes:	1/2″ to 12″ (1.27 cm to 30.48 cm)
Gasket sizes (I.D. x O.D.):	1/2″ x 1-7/8″ to 12″ x 16-1/8″ (1.27 cm x .317 cm to 30.48 cm x 40.32 cm)
Glass-lined steel nozzles or vessels	
Nominal pipe sizes:	1″ to 12″ (2.54 cm to 30.48 cm)
Gasket sizes (I.D. x O.D. x thickness):	1″ x 2-1/2″ x 3/16″ to 12″ x 15″ x 5/16″ (2.54 cm x 6.35 cm x .073 cm to 30.48 cm x 5.90 cm x .312 cm)





Design configurations

Silt Envelope

Ring gaskets with 0.020" (.508 mm) thick leaves silt from the O.D. to approx. 3/64" (1.19 mm) from the I.D. The jacket I.D. matches the nominal pipe size. Sizes range from 1" to 12" (2.54 cm to 30.48 cm) O.D.

Double Jacket

Ideal for vacuum service applications, this design completely covers the filler material with two overlapping PTFE jackets for maximum protection.

Milled Envelope

Made from our PTFE cylinder stock and machined from the O.D. to within 3/64" (1.19 mm) of the I.D., leaving a shield of approx. 0.020" (.508 mm) on the top and bottom. The flat I.D. of the jacket sits flush with the pipe I.D., while the jacket O.D. nests within the bolt circle. Available in sizes up to 12" (30.48 cm) O.D.

Formed Shield

This design is required for diameters of 12" (30.48 cm) or more and for irregular configurations. It incorporates our patented butt weld construction for enhanced durability.

Texolon™

Custom PTFE Precision CNC-Machined Gaskets

We also offer flat gaskets, diaphragms, thrust washers, and other components. These can be supplied as **high-volume, precision CNC machined** products.

Get custom gaskets tailored to your needs. Request a quote today!

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sales@evantic.com

Texolon™
PTFE Diaphragms

Our proprietary thermal molding technology provides unmatched flexibility and durability to manage pressure changes, absorb vibrations, and ensure precise flow control in complex systems.

APPLICATIONS

- Metering devices
- Pumps
- Pressure regulators
- Pulse dampeners
- Spraying technologies
- Valves

INDUSTRIES

- Food & Beverage
- Chemical Processing
- Fluid Handling
- Mining Operations
- Paint & Coatings
- Ceramics Manufacturing

Excellence in Fluid Dynamics

Exceptional chemical resistance: Texolon PTFE diaphragms provide outstanding resistance to a broad range of chemicals, including acids, alkalis, chlorine, aromatics, hydrocarbons, and solvents, making them ideal for use in corrosive environments.

FDA and USP Class VI Compliant: These Texolon products meet stringent FDA and USP Class VI standards, ensuring their suitability for use in food, beverage, and pharmaceutical applications where purity, safety, and biocompatibility are essential.

Exceptional purity: Our PTFE diaphragms offer low extractables, delivering the highest purity levels for critical applications.

High-temperature tolerance: They can withstand extreme temperatures without degrading,
ensuring reliable performance in high-temperature and steam applications.

Flexibility and conformability: These highly reliable components offer exceptional strength, accommodating thermal expansion, movement, and pressure changes to help maintain
system integrity and function.

Vibration and shock absorption: Texolon PTFE diaphragms effectively absorb vibrations and shocks, protecting sensitive equipment and enhancing system stability.

Superior sealing performance: They deliver a tight, effective seal, preventing leaks and maintaining system pressure even under varying conditions.

Self-lubricating properties: Made from high-purity PTFE, they offer natural self-lubrication, reducing friction and wear for an extended lifespan and reliable performance.

Precision and reliability: Texolon PTFE diaphragms are manufactured to the highest standards, ensuring precise performance and reliability in critical fluid handling applications.

CUSTOM PTFE DIAPHRAGMS:
Engineered your way, built to last.

- **Build to print**
- **Custom design**
- **Engineering support**

Texolon™

PTFE Diaphragms

Compression Molded | Chemical Resistant

We produce highly durable and long-lasting skived PTFE diaphragms for pump and valve applications, reducing equipment downtime and increasing productivity. Our custom blanks are machined from compression-molded virgin PTFE rods, then thermally formed in matched die sets and trimmed to your specifications. This meticulous process ensures consistent quality and reliability.

Full-stroke and reduced-stroke PTFE diaphragm design configurations
These chemical-resistant, high-performance diaphragms deliver excellent flex and suction lift, as well as superior flow rates and reliability, essential for aggressive chemical applications.

Designed to accommodate specific pump output sizes
Texolon PTFE diaphragms fit pump output sizes ranging from 1/2" to 3", ensuring optimal performance across a wide range of applications.

Incorporates our proprietary processes for proven durability
Our proprietary PTFE sintering and convoluting process uses calibrated ovens with precise temperature control cycles.

Texolon™ PTFE Diaphragms

Material	
100% virgin PTFE or modified PTFE - Resin grades available (7A and M12)	
Specifications	
Standard O.D. ranges:	1" to 16" (2.54 cm to 40.64)
Standard thickness:	0.079" to 0.28" (2 mm to 7 mm)
Operating temperature:	-80°F (-112°C) to +500°F (260°C)
Pressure rating:	Up to 1,000 psi (6.89 MPa)

Meets and surpasses the 12 million flexural cycle test for standard PTFE diaphragms

Exceptional features

- Flat, convoluted, and dished diaphragm shapes
- One-piece construction design
- Chemically inert with superior abrasion resistance
- Proven to have twice the service life over standard PTFE
- Improved chemical resistance compared to conventional PTFE

WE ALSO PRODUCE DIAPHRAGMS WITH A STAMP CONTOUR SHAPE

- High performance capability
- Low resistive force
- Multi-layered design for high-pressure strength

1-855-686-8600
sales@evantic.com

Texolon™
PTFE Bellows

Compression Molded | Chemical Resistant

Our custom PTFE bellows are fully CNC machined from molded tube – not ram extruded – using our proprietary molding processes. This results in a component with exceptional chemical resistance and strength, enhanced flexibility, and a longer fatigue life.

Custom PTFE bellows:
Tailored to perfection, built to last.

Multiple design configurations available

✓ **Type V** ✓ **In-Parallel** ✓ **Stepped Wall**

Custom design and performance:
We can optimize the following design features to boost durability and performance:

✓ **Compressibility** ✓ **Flexibility** ✓ **Stiffness** ✓ **Travel**

APPLICATIONS

- Metering Devices
- Chemical processing - Equipment & Reactors
- Food & Beverage Filling lines
- Pumps & Valves
- Lab Instruments & Equipment
- Fuel Systems

INDUSTRIES

- Chemical Processing
- Aerospace
- Food & Beverage
- Life Sciences
- Semiconductor

Custom machining and finishing

SUPERIOR PERFORMANCE

- Best-in-class cycle times and burst pressures
- FDA compliant and suitable for sterilization
- Operating temperature range from -32°F to +400°F (-25.6°C to 204°C)

Texolon™ PTFE Bellows

Material	
100% virgin PTFE or modified PTFE	
Specifications	
Standard O.D. ranges:	2″ to 26″ (5.08 cm to 66.04 cm)
Standard lengths:	3″ to 24″ (7.62 cm to 60.96 cm)
Standard convolutions:	2 to 10
Working pressure:	Full vacuum up to high pressure (10 Kg/cm2)

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Optimize performance with superior sealing solutions!

Evantic's advanced PTFE fluid management solutions are designed to meet your toughest application challenges. Our expert team is ready to collaborate – leveraging innovative material science, design and engineering, and manufacturing to deliver sealing solutions that enhance durability, performance, and longevity. Let's create something exceptional together.

Contact us today at 1-855-686-8600 or email us at sales@evantic.com.

Discover our full range of Texolon® PTFE sealing solutions at: www.evantic.com/resourcecenter

WARNING
Properties shown on this document are typical. Your specific application should not be undertaken without independent study and evaluation for suitability. For specific application recommendations, consult Evantic. While the utmost care has been used in compiling this document, we assume no responsibility for errors. This edition cancels all previous issues. Subject to change without notice.

EVANTIC®

Evolving and Advancing Together™

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