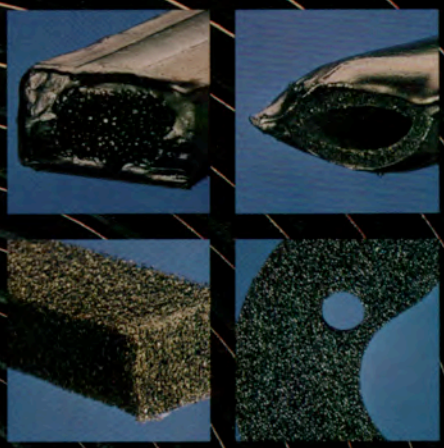
# Specialized Butyl Tapes And Saturated Foam Tapes & Gaskets



preform sealants, inc.

# Saturated Foam Tapes & Gaskets

Preformed Sealant, Inc. (PSI) Saturated Foam is an *open-cell* polyurethane foam which is impregnated with a proprietary sealant material that creates a water/dust/weather/vapor seal when compressed. PSI Saturated Foam is available with pressure-sensitive adhesives to speed installation. The adhesives can be either permanent or re-positionable.

## Ideal For Irregular Surfaces

PSI Saturated Foam expands to seal all the irregular surfaces of the joined materials. Unlike gunned sealants, the continuous tape creates an uninterrupted seal which is not subject to skips or runs during application.

## Fast Recovery

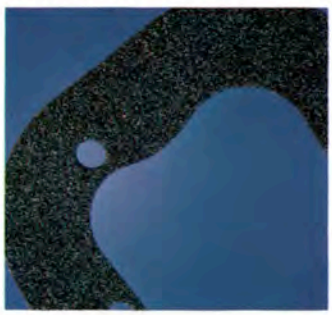
PSI Saturated Foams have the best of both worlds: They require only modest force-to-compress pressure to form a seal (eliminating expensive mechanical presses for installation), yet they have excellent recovery capabilities for filling irregular surfaces.

*Recovery after 2 minutes*

In addition, PSI Saturated Foam has a very forgiving "compression range" that allows for significant installation variances while still maintaining a tight seal against water, vapor, dust and weather (as well as vibration and noise).

## Die-Cut Foam Gaskets

PSI Saturated Foam can be easily die-cut to provide water/dust/weather/vapor seals for a variety of applications.



## Fast, Watertight, Economical

PSI Foam Tape can be used to make versatile seals: just place the foam tape into position, with tape ends side-by-side or joined with angle-cuts. When compressed, the foam forms a solid seal throughout and provides visual assurance of a continuous seal.

## Expansion Joint Applications

PSI Foam Sealants maintain their seal as they expand and contract due to thermal changes in the joined surfaces. This is extremely beneficial when joining materials with different coefficients of expansion. PSI Saturated Foam's resistance to heat allows it to be used with either hot pour or conventional top coatings without any reduction in the foam's performance characteristics.

## PSI Saturated Foam Products

**Precompressed:** All of our rolled foam products are precompressed at the factory to sizes that are smaller than the nominal gap size of a given application, further speeding the sealant installation process.

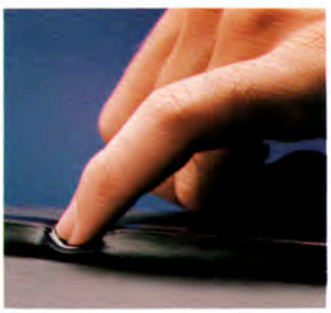
**Tapes:** Available in spools or pre-cut strips, both with release paper. Thicknesses range from 0.125" to 8.0" and widths from 0.25" to 17.0".

**Gaskets:** Die-cut (with or without release paper) to match specific applications.

**Sticks:** PSI Foam Tapes are available in convenient-to-install 7'6" sticks, with either 45° angled or square-cut joint ends.

# Specialized Butyl Tapes

Butyl is an ideal sealing material–but 100% butyl seals are too expensive for many applications. PSI Specialized Butyl Tapes make butyl usage economical. These special cores create much of the sealant's mass, thus reducing the amount of butyl needed to form a seal. In addition, each core provides unique compression-recovery capabilities that butyl alone does not have.



## Low Force-To-Compress Simplifies Installation

No mechanical presses or special machines are needed to install our sealants. This reduces capital costs while simplifying the installer's job. Adhesives permit the installer to quickly and accurately position the sealant.

## Continuous Sealing Along Unconventional Patterns

PSI Butyl Tapes can be applied along unusual patterns making them ideal for sealing uniquely-shaped joints.

## Installs Quickly, With No Gaps

Because the sealant is on a continuous roll, installers can work fast and be visually assured that there are no skips or runs in the sealant.

## Butyl Tape Products

**Foam Core Tape:** An open-cell polyurethane foam that is saturated with PSI's proprietary sealant and fully-encapsulated by automotive-grade butyl.

***Standard Sizes:***
5.5 mm (dia.)
6.0 x 6.0 mm
6.0 x 12.0 mm
6.45 x 6.45 mm
6.0 x 7.0 mm
8.0 x 8.0 mm
12.7 x 12.7 mm

**Air Core Tape:** A tubular, automotive-grade butyl with a hollow EPDM core.

***Standard Diameter Sizes:***
5.5 mm
7.0 mm
8.0 mm

Both Foam Core and Air Core Tape come on rolls with a release liner on one side. Either are available with or without adhesive.

## How Our Seals Work

PSI Saturated Foam and Specialized Butyl Tape both seal upon compression. This compression converts the sealants into "semi-solids" capable of withstanding additional compression without collapsing or rupturing (see "Physical Characteristics" on back cover).

*Create a water seal with only 3.7 psi of force with #517 Saturated Foam.*

*Cored Butyl Tapes require only 25% compression for a water seal.*

PSI Sealants can seal an extremely broad range of materials and can be used in combination with "top-coat" sealants.
(Please check with the factory for a list of compatible top-coating materials.)

## *Custom Converting Services*

***In addition to our saturated polyurethane foam and specialized cored butyl, PSI converts many other specialty materials into die-cut gaskets, strips or rolls, including:***

- ***Neoprene***
- ***EPDM***
- ***SBR Blends***
- ***Nitrile Rubber***
- ***Vinyl Nitrile***
- ***Polyethelene***
- ***PVC***
- ***Polyurethane***

## Applications

PSI's products can be used in numerous applications requiring water/weather/vapor/dust seals between similar or dissimilar materials having regular or irregular surfaces.

**Transportation:** To form seals around windows, body panels, fenders, cabs, and components on cars, trucks, tractors, boats, locomotives, RVs, and more.

**Construction:** To form seals around walls, roofs, windows, doors, prefabricated building components, panels, and expansion joints (for bridges, airport runways, tarmacs, roads, sidewalks, etc.).

**OEM:** To form gasket seals around components. Particularly useful for handling sudden changes in joint width caused by temperature and/or stress variations. Applications include electrical enclosures, appliances, pumps, industrial computers, farm equipment, marine components, testing equipment, lighting, electro-mechanical devices, weatherproof enclosures, etc.

## Unique Quality Credentials

PSI has extensive experience meeting the rigorous technical standards of the automotive industry. PSI is a designated Ford Motor Company "Q1 Supplier," as well as a key supplier to Chrysler Corp. and General Motors Corp.

Our continuous investment in quality improvement is demonstrated through our quality assurance programs: Advanced Quality Planning (AQP), Failure Mode and Effects Analyses (FMEAs), Statistical Process Control (SPC) and a comprehensive Quality Operating System.

## Physical Characteristics

| | Saturant Foam | | | Specialized Butyl | |
|---|---|---|---|---|---|
| | #545 | #546 | #517 | Air Core | Foam Core |
| **Percentage of Compression Needed For:** | | | | | |
| Water Seal | 85% | 85% | 75% | 25% | 25% |
| Dust | 20% | 20% | 20% | 25% | 25% |
| Weather | 50% | 40% | 50% | 25% | 25% |
| Vapor | 80% | 80% | 80% | 25% | 25% |
| Max. Compression: | 89% | 86% | 89% | 50% | 50% |
| **Force (psi) To Achieve The Following Compressions:** | | | | | |
| 75% | 1.81 | 11.75 | 3.70 | — | — |
| 80% | 3.98 | 26.58 | 8.11 | — | — |
| 85% | 8.42 | 55.50 | 19.56 | — | — |
| 90% | 20.32 | 66.00 | 44.44 | — | — |
| Max. Compression | 39.45 | 66.00 | 44.44 | 5.8 | 9 |

## Performance Specifications, Design Manual & RFQ Form

PSI offers a general Design Guide with a request-for-quote form, as well as detailed Product Performance Booklets for each specific sealant.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NOTE: This brochure was created to assist Preform Sealants, Inc.'s customers in assessing the performance characteristics of our Saturated Foam Products and Cored Butyl Tapes. Every precaution has been taken to insure the accuracy of this data. However, in that conditions can vary greatly between actual applications and controlled test situations thus changing the performance of our products, Preform Sealants, Inc. will not be liable for any loss or damages resulting from the use of this data or our products by persons known or unknown to Preform Sealants, Inc. Further we offer no guarantees, or propose that the products are suitable for use in any application whatsoever. All data is subject to change without notice.