



# Technical Data Sheet

## 3M™ Extreme Sealing Tape 4412W+



[Product Details](#)



[Regulatory Info/SDS](#)

### Product Description

3M™ Extreme Sealing Tapes are single-coated, pressure sensitive adhesive tapes that are designed for sealing applications. They feature a flexible TPO backing that easily conforms over screw heads, rivets, joints, splices, and other protrusions, providing reliable protection from water intrusion. 3M™ Extreme Sealing Tapes' acrylic adhesive chemistry allows for bonding to a variety of substrates while maintaining reliable durability.

### Product Features

- White, 2.0 mm (0.080 in) thick tape designed for sealing applications.
- Sticks immediately after the application of pressure to metals, plastics, and other surfaces.
- Provides an immediate seal without the cure time or mess typically associated with liquid sealants.
- Features a linerless acrylic adhesive, enabling easier application with less waste.

### Technical Information Note

The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

### Typical Physical Properties

Attribute Name	Value
Color	White
Adhesive Type	Very Conformable Multi-Purpose Acrylic
Backing	TPO
Density	820 kg/m <sup>3</sup> (51 lb/ft <sup>3</sup> )

Attribute Name	Value
Total Tape Thickness	2.0 mm (80 mil)
Adhesive Thickness	1.9 mm (76 mil)
Backing Thickness	0.1 mm (4 mil)
Thickness Tolerance	±10 %

### Typical Performance Characteristics

Substrate: Aluminum  
Temperature: 23 °C (73 °F)  
Dwell Time: 72 h

Attribute Name	Test Method	Backing	Value
90° Peel Adhesion	ASTM D3330	5 mil Aluminum Foil	21.5 N/cm (12.3 lb/in) <sup>1</sup>
Normal Tensile	ASTM D897		315.5 kPa (45.8 lb/in <sup>2</sup> ) <sup>2</sup>

<sup>1</sup> 300 mm/min (12 in/min)

<sup>2</sup> 6.45 cm<sup>2</sup> (1 in<sup>2</sup>), Jaw Speed 51 mm/min (2 in/min)

Substrate: Stainless Steel  
Test Condition: 500 g  
Test Method: ASTM D3654

Attribute Name	Value
Long Term Temperature Resistance	93 °C (200 °F) <sup>1</sup>
Short Term Temperature Resistance	149 °C (300 °F) <sup>2</sup>

<sup>1</sup> Maximum temperature where tape supports indicated load per 6.5cm<sup>2</sup> (1 in<sup>2</sup>) in static shear for 10,000 minutes.

<sup>2</sup> Maximum temperature where tape supports indicated load per 6.5cm<sup>2</sup> (1 in<sup>2</sup>) in static shear for 60 minutes.

Attribute Name	Value
Minimum Application Temperature	10 °C (50 °F)

## **Handling/Application Information**

### **Application Techniques**

#### **Surface Preparation:**

The first step to making a successful seal is to prepare the surface for bonding. Make sure that the bonding surface is clean of all contaminants. For most surfaces, cleaning with a mixture of isopropyl alcohol and water (50/50 or 70/30) is effective. If the substrate is contaminated with heavy oils or grease, a degreaser or strong solvent should be used to remove the oil. A final wipe of isopropyl alcohol and water should follow the degreasing step.

The following adhesion promoters and primers may be used to increase the bond strength of 3M™ Extreme Sealing Tape:

3M™ VHB™ Water-Based Promoter UV

3M™ Adhesion Promoter 111

3M™ Tape Primer 94

3M™ Universal Primer UV

Please refer to technical data sheets for application instructions and guidance surrounding the types of materials that these adhesion promoters and primers are effective on.

**\*Note:** When using solvents, be sure to follow the manufacturer's precautions and directions for use.

#### **Application of Pressure:**

Bond strength is dependent upon the amount of adhesive-to-surface contact developed. Firm application of pressure develops better adhesive contact and helps to improve bond strength. Good surface contact can be attained by applying approximately 100 kPa (15 psi) of pressure. This can generally be attained by hand or with the use of a handheld roller.

#### **Application Temperature:**

The ideal application temperature range (the temperature at which the tape is applied) for 3M™ Extreme Sealing Tape is 21°C to 38°C (70°F to 100°F). Pressure sensitive adhesives use viscous flow to achieve substrate contact. The tape generally reaches ultimate bond strength 72 hours after the application of pressure but provides an immediate seal. The minimum suggested application temperature for 3M™ Extreme Sealing Tape is 10°C (50°F).

#### **Tape Width:**

The tape should be wide enough to cover all potential intrusion paths. It is recommended to extend the tape at least 2.54 cm (1 in) beyond the intrusion path.

#### **Creating an Overlap Seam:**

It is often required to overlap 3M™ Extreme Sealing Tape onto itself. In this case, the TPO backing of the first piece of tape becomes the substrate that the second piece of tape will adhere to.

Surface Preparation: The TPO backing material should be cleaned with a 50/50 or 70/30 mixture of isopropyl alcohol and water. For optimal results, it is highly recommended that the TPO backing material be promoted/primed with 3M™ Adhesion Promoter 111, 3M™ Tape Primer 94, or 3M™ Universal Primer UV prior to overlapping. If promoting the TPO backing material with 3M™ Adhesion Promoter 111, cleaning prior to applying promoter may not be necessary. If priming the TPO backing material with either 3M™ Tape Primer 94 or 3M™ Universal Primer UV, you must clean with a mixture of isopropyl alcohol and water prior to applying primer.

Application of Pressure: Firm pressure must be applied to all points of overlap between the two tapes. This can generally be achieved by hand or with the use of a handheld roller.

## **Storage and Shelf Life**

This product has a shelf life of 24 months from the date of manufacture when stored in its original packaging at 4°C to 38°C (40°F to 100°F) and 0-95 % relative humidity. Optimum storage conditions are 22°C (72°F) and 50 % relative humidity.

## **Available Sizes**

Attribute Name	Value
Core Size (ID)	76.2 mm (3 in)
Maximum Available Width	1219.2 mm (48 in)
Minimum Available Width	6.4 mm (0.25 in)
Normal Slitting Tolerance	±0.79 mm (±1/32 in)
Standard Roll Length	16.5 m (18 yd)

## **Product Family**

3M™ Extreme Sealing Tapes: 4410W+, 4410G+, and 4410B+

3M™ Extreme Sealing Tapes: 4411W+, 4411G+, and 4411B+

3M™ Extreme Sealing Tapes: 4412W+ and 4412G+

## **Information**

**Technical Information:** The technical information, guidance, and other statements contained in this document or otherwise provided by 3M are based upon records, tests, or experience that 3M believes to be reliable, but the accuracy, completeness, and representative nature of such information is not guaranteed. Such information is intended for people with knowledge and technical skills sufficient to assess and apply their own informed judgment to the information. No license under any 3M or third party intellectual property rights is granted or implied with this information.

**Product Selection and Use:** Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. As a result, customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's application, including conducting a workplace hazard assessment and reviewing all applicable regulations and standards (e.g., OSHA, ANSI, etc.). Failure to properly evaluate, select, and use a 3M product and appropriate safety products, or to meet all applicable safety regulations, may result in injury, sickness, death, and/or harm to property.

**Warranty, Limited Remedy, and Disclaimer:** 3M warrants for 24 months from the date of 3M manufacture that 3M™ VHB™ Tape will be free of defects in material and manufacture. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE. This warranty does not cover damage resulting from the use or inability to use 3M™ VHB™ Tape due to misuse, workmanship in application, or application or storage not in accordance with 3M recommended procedures (except to the extent 3M approves and issues a specific application warranty, for which the customer must apply, receive 3M approval, and meet all applicable warranty and process requirements, the additional details, terms, and conditions of which are available from 3M). If a 3M product does not conform to this warranty, then the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price.

**Limitation of Liability:** Except for the limited remedy stated above, and except to the extent prohibited by law, 3M will not be liable for any loss or damage arising from or related to the 3M product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity), regardless of the legal or equitable theory asserted, including, but not limited to, warranty, contract, negligence, or strict liability.

**Disclaimer:** 3M industrial and occupational products are intended, labeled, and packaged for sale to trained industrial and occupational customers for workplace use. Unless specifically stated otherwise on the applicable product packaging or literature, these products are not intended, labeled, or packaged for sale to or use by consumers (e.g., for home, personal, primary or secondary school, recreational/sporting, or other uses not described in the applicable product packaging or literature), and must be selected and used in compliance with applicable health and safety regulations and standards (e.g., U.S. OSHA, ANSI), as well as all product literature, user instructions, warnings, and limitations, and the user must take any action required under any recall, field action or other product use notice. Misuse of 3M industrial and occupational products may result in injury, sickness, or death. For help with product selection and use, consult your on-site safety professional, industrial hygienist, or other subject matter expert. For additional product information, visit [www.3M.com](http://www.3M.com).

## **ISO Statement**

This product was manufactured under a 3M quality system registered to ISO 9001 standards.

3M™ Industrial Adhesives and Tapes Division  
3M Center, St. Paul, MN 55144-1000  
[3M.com/iatd](http://3M.com/iatd)

3M and VHB are trademarks of 3M Company.  
©3M 2025 (8/25)