

**3M**  
**VHB™ Conformable Acrylic Foam Tape**  
**4941**

**Product Data Sheet**

Date: September 2002  
Supersedes: May 2002

**Product Description**

4941 is a conformable, very high bond acrylic foam tape which has added performance for bonding to plasticised vinyl due to a specially formulated adhesive which resists plasticiser migration. In addition this core adhesive composition makes the product well suited to many paints and primers.

Its improved conformability also allows more complete bond contact area when bonding rigid or irregular materials.

The product has somewhat lower peel, tensile and shear performance than other VHB tape products due to its inherent softness.

4941's principal advantages are that it provides a more uniform seal on irregular surfaces, and in visible bonds under a transparent surface it offers a more aesthetically pleasing bond.

4941 is suitable for many interior and exterior industrial applications.

**Construction**

	<b>VHB 4941</b>
<b>Adhesive Type</b>	Acrylic
<b>Foam Density</b>	720 kg/m <sup>3</sup>
<b>Thickness</b> (ASTM D-3652)	
Tape	1.10mm ± 15 %
Liner	0.10 mm
Total	1.20 mm
<b>Adhesive Carrier</b>	Acrylic Foam (Closed Cell)
<b>Release Liner</b>	Printed Paper White printed Red 3M VHB™
<b>Tape Colour</b>	Dark Grey
<b>Shelf Life</b>	

## Performance Characteristics

<b>Peel Adhesion to Stainless Steel</b> 90° peel @ room temp, 72 hr dwell, jaw speed 300mm/min	350 N/100mm
<b>Static Shear Strength</b> weight held for 10,000 mins to stainless steel with ½ sq in (3.23 sq cm) overlap	1000g @ 22°C 500g @ 70°C
<b>Temperature Performance</b> Max (minutes/hours) Max Continuous (days/weeks)	150 °C 90 °C
<b>Normal Tensile (T-Block)</b> to Aluminium at room temp, 6.45 sq cm, jaw speed 50 mm/min	585 kPa

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### Application Techniques

1. Bond strength is dependent upon the amount of adhesive-to-surface contact developed. Firm application pressure develops better adhesive contact and thus improves bond strength.
2. To obtain optimum adhesion, the bonding surfaces must be clean dry and well unified. A typical surface cleaning solvent is isopropyl alcohol & water. Use proper safety precautions for handling solvents.
3. Ideal tape application temperature range is 20°C to 40°C  
Initial tape application to surfaces at temperatures below 15°C is not recommended because the adhesive becomes too firm to adhere readily. However once properly applied low temperature holding is generally satisfactory.

### NOTE\*

Some paint systems and plastics contain additives which can influence adhesion. Adhesion to these surfaces should be evaluated carefully; the effects of these additives can often be overcome by proper cleaning and surface preparation. High humidity/high temperature environments can also affect adhesion to glass due to the hydrophilicity of glass. Under these environments a silane coupling agent (adhesion promoter) has been found to enhance the durability and strength of the bond.

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### Applications

This product has been found to be particularly suitable for bonding wooden (primed), aluminium (anodised) and PVC Georgian glazing bars (muntin bars) to glazing units. The plasticiser resistant adhesive also allows for successful bonding of flexible PVC Glazing bars.

The conformable nature of the acrylic foam core allows for good 'wetting out' of the adhesive to the glass surface thus providing good adhesive to surface contact. Also, good contact eliminates unsightly air bubbles. Primers might be appropriate when bonding such systems.

VHB 4941 tape has also been found excellent when bonding to relatively irregular surfaces such as grained wood. (Care must be taken to provide a good unified surface through priming.)

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### Shelf Life

3M VHB 4941 has a shelf life of 24 months from date of despatch by 3M when stored in the original carton at 20°C & 50 % Relative Humidity

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### For Additional Information

To request additional product information or to arrange for sales assistance, call.....  
Address correspondence to: 3M

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**Important Notice**

All statements, technical information and recommendations contained in this document are based upon tests or experience that 3M believes are reliable. However, many factors beyond 3M's control can affect the use and performance of a 3M product in a particular application, including the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Since these factors are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method or application.

All questions of liability relating to this product are governed by the terms of the sale subject, where applicable, to the prevailing law

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Values presented have been determined by standard test methods and are average values not to be used for specification purposes. Our recommendations on the use of our products are based on tests believed to be reliable but we would ask that you conduct your own tests to determine their suitability for your applications.

This is because 3M cannot accept any responsibility or liability direct or consequential for loss or damage caused as a result of our recommendations

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