



# VHB™ Acrylic Foam Tape 4646F

## Product Data Sheet

Date: May 2004  
Supersedes: September 2002

### Product Description

4646F is a dark grey double coated acrylic foam tape with a high tack acrylic adhesive. This tape has a plain red filmic liner. The excellent temperature performance enables bonding of materials prior to processing in a powder coating line

### Physical Properties

Not for specification purposes

<b>Adhesive Type</b>	Acrylic
<b>Foam Core</b>	Acrylic
<b>Thickness (ASTM D-3652) Tape</b>	0.6. mm ± 0.1mm
<b>Release Liner</b>	Red Filmic
<b>Tape Colour</b>	Dark Grey
<b>Foam Density</b>	840 kg/m <sup>3</sup>

### Performance Characteristics

Not for specification purposes

<b>Peel Adhesion to Stainless Steel</b> 90° peel @ room temp, 72 hr dwell, jaw speed 300mm/min AFERA 4001 (modified)	20 N/10mm
<b>Static Shear Strength</b> weight held for 100 hours to stainless steel with ½ sq in (3.23 sq cm) overlap	1000g @ 20°C 500g @ 70°C
<b>Temperature Performance</b>  Continuous Intermittent	  90 °C 150 °C

### Additional Product Information

This product is suitable for plasticised PVC but is not suitable for low surface energy plastics.

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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 & 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 21°C to 40°C. Initial tape application to surfaces at temperatures below 10°C (50°F) is not recommended because the adhesive becomes too firm to adhere readily. However once properly applied low temperature holding is generally satisfactory.

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**Applications**

4646F is a high performance double coated acrylic foam product which possesses a good balance between shear peel and high tack adhesion. It has been designed to be suitable for a range of bonding applications which require a level of adhesion higher than standard double coated foam tapes but perhaps lower than higher performance 3M VHB™ tapes.

Typical applications include:

- Bonding roof bows on trucks and buses
- Signage applications

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**Shelf Life**

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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