# 3 Double Coated Foam Tape 4664

## **Product Data Sheet**

Updated : Sept 2002 Supersedes : January 1994

**Product Description** 

A-20 is a firm acrylic pressure sensitive adhesive system. It features high ultimate bond strength, very high

strength, very high temperature and solvent

resistance and

excellent shear holding

power.

Bond strength increases substantially with time.

### Physical Properties

Not for specification purposes

| Adhesive Type           | Acrylic   |  |
|-------------------------|---|--|
| Thickness (ASTM D-3652) |   |  |
| Tape                    | 0.40 mm   |  |
| Liner                   | 0.08 mm   |  |
| Total                   | 0.48 mm   |  |
|                         |   |  |
| Release Liner           | Green Plaid Paper                                       |  |
|                         |   |  |
| Tape Colour             | White   |  |
| 1                       |   |  |
| Shelf Life              | 12 months from date of despatch by 3M when stored in th |  |
|                         | original carton at 20°C & 50 % Relative Humidity        |  |

#### Performance Characteristics

Not for specification purposes

| Peel Adhesion to  | 24 N/10mm  |  |
|---|--|--|
| Stainless Steel 90° peel @ room temp, 72 hr dwell, jaw speed 300mm/min.                                   |  |  |
| Static Shear Strength<br>weight held for 10 hours to stainless steel with<br>½ sq in (3.23 sq cm) overlap | 1500 g @ 20°C  |  |
| Temperature   |  |  |
| Performance   |  |  |
| Max (hours/minutes)   | 150°C  |  |
| Max Continuous  |  |  |
| (days/weeks)  | 100°C  |  |
| Normal Tensile (T-  |  |  |
| Block)  | 460 kPa  |  |
| to Aluminium at room temp,<br>6.45 sq cm, jaw speed 50 mm/min   |  |  |
| Solvent Resistance  | No apparent degradation when exposed to splash testing           |  |
|   | of most hydrocarbon solvents.                                    |  |
| UV Light Resistance   | No apparent degradation when exposed to 7 days in U. V. Chamber. |  |

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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. 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 10°C is not recommended because the adhesive becomes too firm to adhere readily. However once properly applied low temperature holding is generally satisfactory.

#### **Applications**

4664 has been developed to provide high peel and shear performance bonds to a variety of substrates. Its acrylic construction also allows for good sealing capabilities and high temperature performance.

Its superior shear performance makes it ideally suitable for mirror mounting and nameplate bonding applications. Care should be taken to avoid bonding to safety backed mirrors and low surface energy substrates.

It is suggested that a minimum of 25cm² of tape contact on each surface is used to support 1kg of continuous static shear load, however, this should be tested and thoroughly evaluated to ensure it meets specific requirements prior to use.

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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.



Tapes & Adhesives

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