

VHB[™] Acrylic Foam Tape 5952F

Product Data Sheet

Date: April 2019 Supersedes: Sept 2002

Product Description

3M™ VHB™ Acrylic Foam Tape 5952 is a double coated pressure sensitive adhesive tape for bonding a wide variety of substrates including lower surface energy materials such as powder coated paints and plastics.

In many cases abrasion of surface is not required.

Construction

Adhesive Type	Acrylic Foam
Thickness (ASTM D-3652)	1.1 mm
Foam Density	590 kg/m³
Release Liner	Red polyethylene film
Tape Colour	Black

Performance Characteristics

Peel Adhesion to Stainless Steel 90° peel @ room temp, 72 hr dwell, jaw speed 300 mm/min	35 N/10 mm
Static Shear Strength ASTMD-3654 Weight hold listed weight for 10,000 min (approx. 7 days) to stainless steel with 3.22 cm ² overlap	1000 g @ 22 °C 500 g @ 68 °C 250 g @ 93 °C
Normal Tensile (T-Block) to Aluminium at room temp, 6.45 cm², jaw speed 50 mm/min	492 kPa
Temperature Resistance Short Term: (minutes, hours) Long Term: (days, weeks)	150 °C 93 °C
Solvent Resistance Splash testing cycle - 20 seconds submersion - 3 cycles.	High

Storage & Shelf Life

All 3M™ VHB™ Tapes have a shelf life of 24 months from date of manufacture when stored at 4 °C to 38 °C and 0-95% relative humidity. The optimum storage conditions are 22 °C and 50% relative humidity

Additional Product Information

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.

To obtain optimum adhesion, the bonding surfaces must be clean, dry and well unified. Typical surface cleaning solvents are isopropyl alcohol/water mixture (rubbing alcohol) or heptane. Use proper safety precautions for handling solvents.

It may be necessary to seal or prime some substrates prior to bonding.

Most porous or fibred materials (e.g. wood) will require sealing to provide a unified surface.

Some materials (e.g. copper, brass, plasticised vinyl) will require priming or coating to prevent interaction between adhesive and substrates.

VHB Joining Systems are suited for use in many interior and exterior industrial applications. In many situations, they can replace rivets, spot welds, liquid adhesives and other permanent fasteners.

Each product in the VHB family has specific strengths. These can include high tensile, shear and peel adhesion and resistance to solvents, moisture and plasticiser migration.

All VHB tapes should be thoroughly evaluated by the user under actual use conditions with intended substrates, especially if expected use involves extreme environmental conditions.

VHB Joining Systems are suitable for bonding a variety of substrates, including sealed wood, many plastics, composites and metals. Plastics which can be a problem are polyethylene, polypropylene, PFTE, silicones and other low surface energy materials.

Plasticised vinyl bonding is dependent on the types and concentrations of plasticisers which can migrate into the adhesives causing a reduction in bond strength; 4941 and 4945 are most resistant to plasticiser migration.

To prevent corrosion on copper and brass, only lacquer coated material should be used within VHB Joining Systems.

Thorough evaluations are recommended when bonding is required to any questionable surface.

For Additional Information

To request additional product information or to arrange for sales assistance, call 0330 0538936. Address correspondence to: IATD, 3M United Kingdom Plc, 3M House, 4th Floor, Building 8, Exchange Quay, Salford Quays, Manchester, M5 3EJ.

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.

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.

3M and VHB are trademarks of the 3M Company.

3M United Kingdom Plc 3M Centre Cain Road Bracknell Berkshire RG12 8HT 3M Ireland Limited The Iveagh Building The Park Carrickmines Dublin 18 Ireland