

3M Industrial Adhesives & Tapes

3M™ VHB™ permanent assembly tapes



Proven alternatives to screws, rivets and welds



3M

A vertical mechanical testing apparatus is shown. At the top, a black metal hook is attached to a wooden block. Below it, a metal hook is suspended from a horizontal metal bar. A piece of clear, adhesive tape is wrapped around the metal hook. The tape is being pulled downwards, causing it to stretch and tear. The background is dark and out of focus, showing some mechanical components.

Can tape *really* replace mechanical fasteners?

Yes. Acrylic foam tape is a specialty bonding tape that is a proven high-strength alternative to screws, rivets, welds and other forms of mechanical fasteners. While a screw or a rivet can join two substrates at a single point, specialty bonding tape permanently adheres one substrate to another and spreads the stress load across the entire length of the joint. Once substrates are joined with high-strength bonding tape, a virtually indestructible “weld” is created.



3M™ VHB™ Tapes offer Unlimited design and application possibilities

Skyscrapers, cell phones, electronic highway signs, refrigerators, marine electronics, architectural windows, recreational vehicles and trailers... all of these rely on specialty bonding tape for one or more steps in the assembly, mounting, fastening and sealing process. The inherent properties of bonding tapes make this wide array of applications possible.

Benefits and performance mechanical fasteners can't match.

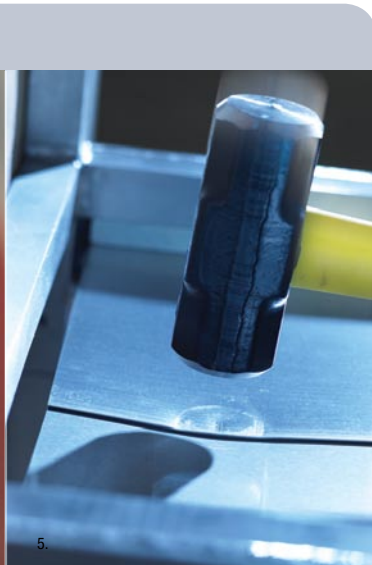
Acrylic foam tape is comprised of closed cell foam with pressure sensitive adhesive on two sides. This unique combination offers benefits that screws, rivets, welds and other types of mechanical fasteners just can't match:

Instant bonding



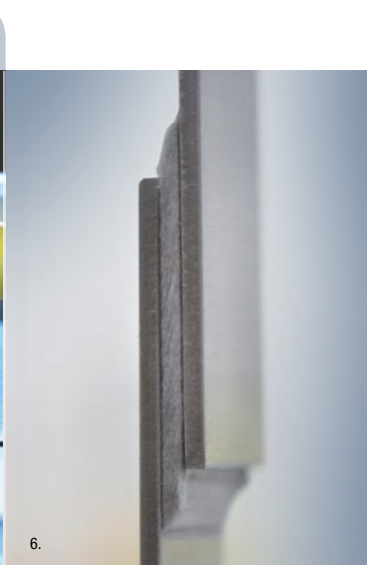
Pressure sensitive acrylic foam bonds two substrates together on contact with no drying time.

Shock absorption



The acrylic closed cell foam has properties that absorb shock and impact. A variety of thicknesses are available.

Stress distribution



The continuous bond distributes stress over the entire length of the joined surfaces.

Expansion and contraction



Acrylic closed cell foam remains flexible to accommodate material expansion and contraction caused by temperature extremes. What's more, specialty bonding tape also allows for differing expansion and contraction rates of dissimilar substrates, such as plastic bonded to metal.

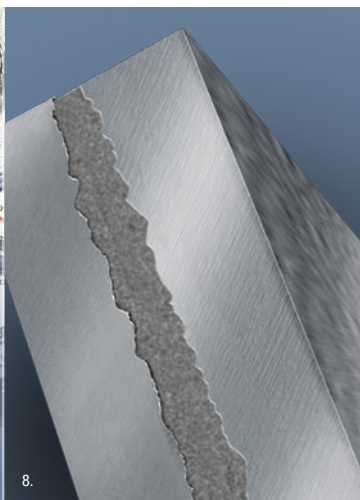
ibilities.

Waterproofing



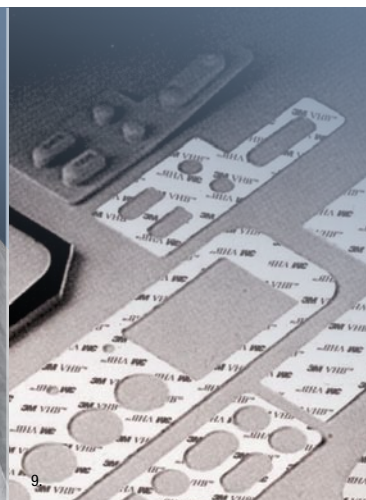
Bonding tape creates a permanent seal against environmental elements.

Conformability



Specialty bonding tape is flexible and conforms to irregularities of rigid substrates, even when there might be a slight mismatch, while maintaining high internal strength.

Design flexibility



Precision die-cutting to fit any shape, size or profile maximizes design flexibility while helping to minimize assembly time.

Smooth, invisible appearance



Virtually invisible fastening helps keep surfaces smooth and clean. No unsightly rivet heads, weld marks and screw heads will be seen.

Improved productivity



Using bonding tape can help eliminate drilling, grinding, refinishing, screwing, welding and clean-up.

3M brings long-term, proven performance to the table.

Specialty bonding tapes were invented by 3M more than 30 years ago. Since then their remarkably high holding power in static and dynamic loads has made 3M bonding tapes a worldwide fastener of choice for an amazing variety of industries. With every new application, bonding tape offers proven strength, reliability, durability and quality that outperforms many other fastening and assembly methods. 3M bonding tapes have improved products and processes in many applications and 3M is constantly developing new solutions to meet customers' growing and changing needs.



30+ years
of 3M™ VHB™ Tapes

Choose
the type of specialty
bonding tape that's
right for you.

New

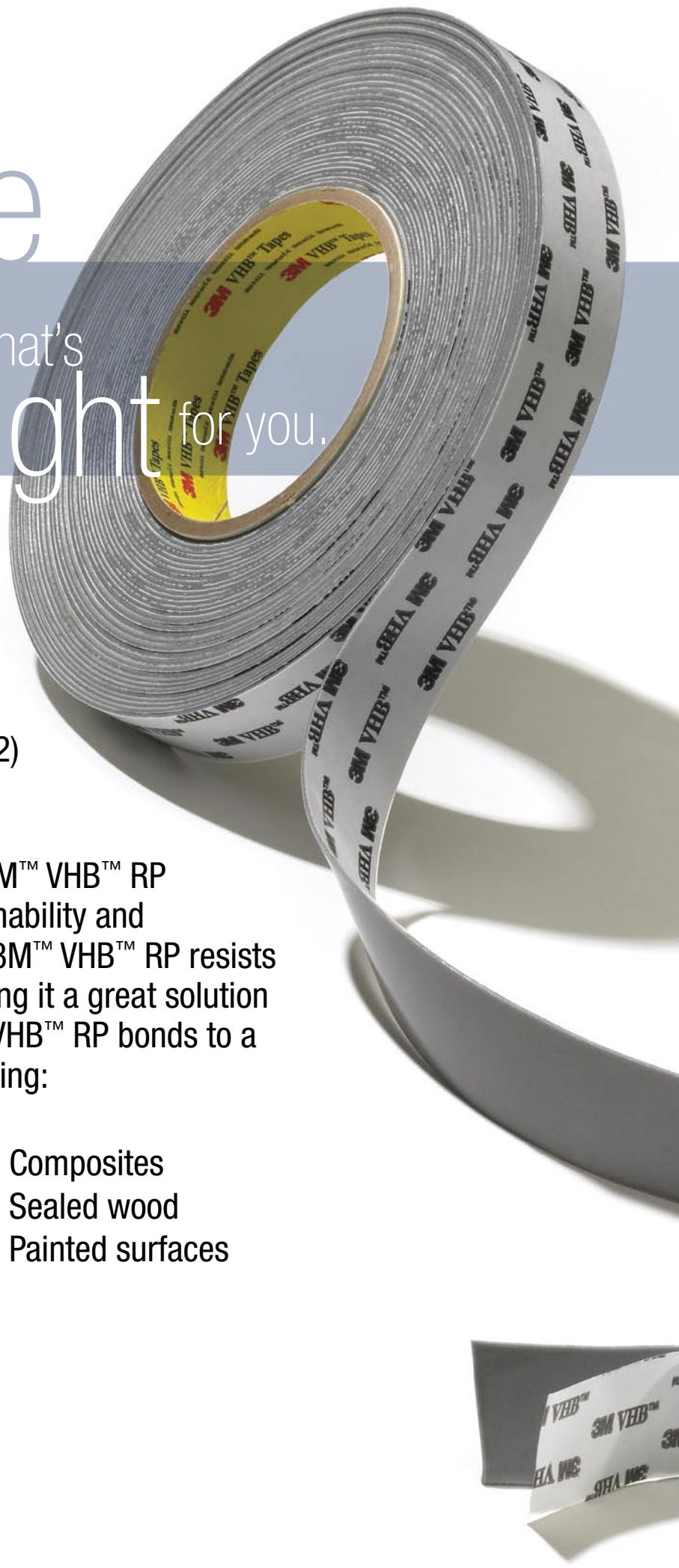
3M™ VHB™ Tape RP Family

(RP16, RP25, RP32, RP45, RP62)

The All Star.

All acrylic construction gives 3M™ VHB™ RP extraordinary strength, conformability and versatility. The composition of 3M™ VHB™ RP resists UV and weather damage, making it a great solution for outdoor applications. 3M™ VHB™ RP bonds to a wide variety of surfaces, including:

- Glass
- Metal
- Many plastics
- Composites
- Sealed wood
- Painted surfaces



3M™ VHB™ Tape 5952 Family

(5915, 5915P, 5925, 5925P, 5930, 5930P, 5952, 5952P, 5962, 5962P, 5958FR)



11.

The Crowd Pleaser.

3M™ VHB™ 5952 permanent assembly tape combines the most conformable acrylic foam with modified acrylic adhesive. The result is a tape that adheres to the broadest range of substrates. 3M™ VHB™ 5952 performs great on:

- Glass
- Metal
- Several medium surface-energy plastics such as rigid PVC, acrylic, polycarbonate, ABS and polystyrene
- Most powder-coated paints
- Painted/sealed wood and concrete
- Fire-retardant applications (Passes FAR 25.853 (a) 12 second Vertical Burn Appendix F, Part 1 (a) (ii). 5958FR only).

3M™ VHB™ Tape 4941 Family

(4926, 4936, 4936F, 4919F, 4941, 4941F, 4947F, 4956, 4956F, 4979F, 4991)



12.

The Most Valuable Player.

All acrylic adhesive and conformable acrylic foam have made 3M™ VHB™ 4941 a proven performer in harsh environments, as well as a top performer for:

- Glass
- Many medium surface-energy plastics such as rigid PVC, many plasticized vinyls, acrylic and polycarbonate
- Outdoor and harsh environmental applications
- Painted/sealed porous surfaces such as wood and concrete

Selecting the right 3M™ VHB™ Tape for your application is easy.

Factors to consider when choosing a 3M™ VHB™ tape:

1. What are you bonding together?
2. What performance demands are there?
3. What kind of environmental conditions will the finished product be subject to?

You can discuss these and other important questions with one of our industrial representatives by calling 1-800-362-3550.

Upon request our technical support services can customize a substrate/product usage test to ensure the best 3M™ VHB™ tape is selected for your product.

For more information about 3M™ VHB™ Tapes visit 3M.com/VHB or visit our YouTube channel at www.YouTube.com/3MIndAdhesives and choose the 3M™ VHB™ Tapes Playlist.





LIMITED PRODUCT WARRANTY: 3M warrants for 24 months from the date of manufacture, 3M™ VHB™ tapes will be free of defects in material and manufacture. 3M MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. 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.

IMPORTANT NOTICE: User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of application. Please remember that many factors can affect the use and performance of a 3M product in a particular application. The materials to be bonded with the product, the surface preparation of these materials, the products selected for use, the conditions in which the product is used, and the time and environmental conditions in which the product is expected to perform are among the many factors that can affect the use and performance of a 3M product. Given the variety of factors that can affect the use and performance of a 3M product, some of which 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 of application.

LIMITATION OF REMEDIES AND LIABILITY: If the 3M™ VHB™ Tape is proven to be defective within the warranty period stated above, THE EXCLUSIVE REMEDY, AT 3M'S OPTION, SHALL BE TO REFUND THE PURCHASE PRICE OF OR TO REPAIR OR REPLACE THE DEFECTIVE 3M™ VHB™ TAPE. 3M shall not otherwise be liable for loss or damages, whether direct, indirect, special, incidental, or consequential, regardless of the legal theory asserted, including negligence, warranty, or strict liability.



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