

3M Industrial Adhesives & Tapes

3M™ VHB™  
permanent  
assembly tapes



Proven alternatives to screws, rivets and welds



A vertical mechanical testing apparatus is shown. At the top, a metal hook is suspended from a wooden block. Below the hook, a white, tape-like fastener is attached to a metal component. The metal component is a hook-shaped fastener that is being tested. The background is dark and out of focus, showing a grid-like pattern. The text "Can tape really replace mechanical fasteners?" is overlaid on the image.

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.



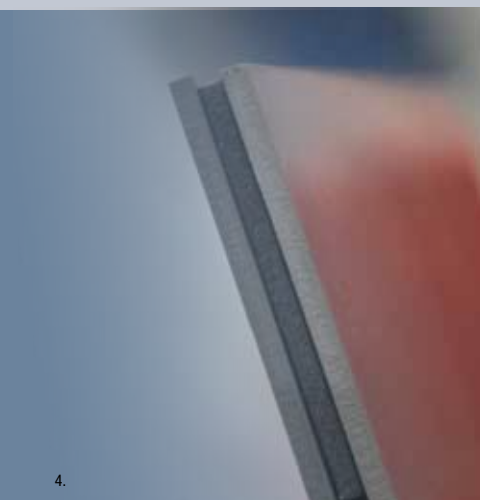
# 3M™ VHB™ Tapes offer Unlimited design and application possibilities

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.

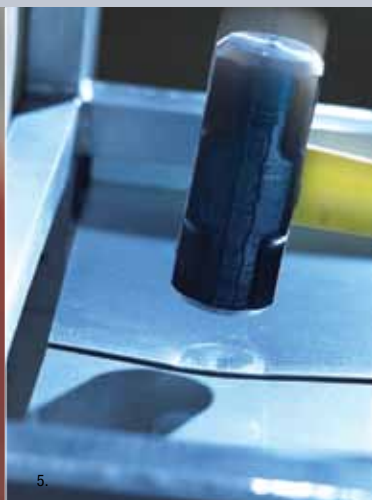
Acrylic foam tape is comprised of closed cell foam with pressure sensitive adhesive on two sides. This unique combination offers benefits that screws, rivets, welds and other types of mechanical fasteners just can't match:

### 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.

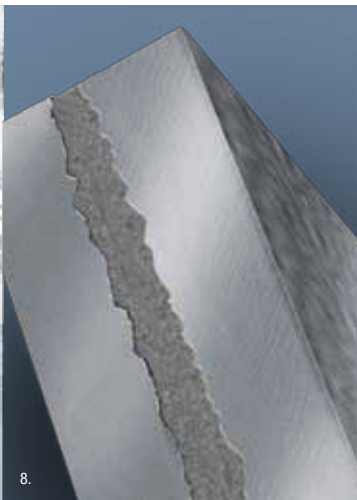
# ibilities.

## 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.

A stack of several rolls of 3M VHB Tapes. The top roll is yellow and has the text '3M VHB Tapes' printed on it. Below it, a blue graphic features a large '30' with a circular arrow around it, followed by '+years' and 'of 3M™ VHB™ Tapes'.

**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](http://3M.com/VHB) or visit our YouTube channel at [www.YouTube.com/3MIndAdhesives](http://www.YouTube.com/3MIndAdhesives) and choose the 3M™ VHB™ Tapes Playlist.

