



VHB™ Acrylic Foam Tapes

Your alternative to rivets, screws and welding.

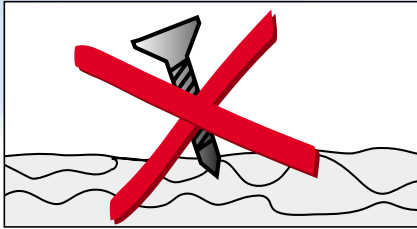


Improving your productivity by speeding up your assembly processes

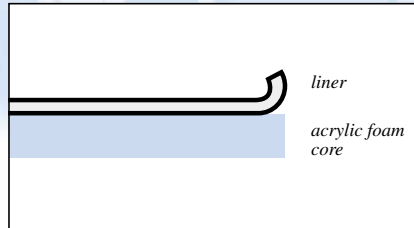
What makes 3M™ VHB™ Acrylic Foam Tapes so extraordinary?

For over 20 years, we have been at the forefront of change in industrial assembly technology. Our Very High Bond acrylic foam tapes are high performing and economical alternatives to traditional mechanical fastening systems. Little or no investment in machinery is required. Your products are of better quality, stronger, better looking and of higher resistance to corrosion and environment. Now, take a look at what VHB Tape means for you!

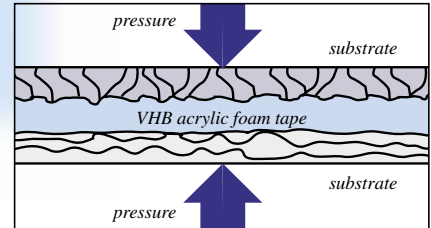
How VHB Acrylic Foam Tape works



Finishing time is reduced and appearance enhanced by eliminating screws, rivets and welding.



VHB tape differs from regular foam tapes by its 100% pure acrylic adhesive core so it has high cohesive strength



Simple hand roller pressure and the bond is made.

Sample



This sample is bonded with VHB tape. Try to separate the two foils and pull as hard as you can. VHB tape is viscoelastic – it stretches as it absorbs the force applied to the bond and then returns to its original shape.

Benefits

Quality advantages

- strong and durable bonds
- no drilling or welding
- no grinding or finishing of the bond
- seamless finished product
- vibration dampening
- uniform bondline
- enhanced aesthetics
- excellent sealing properties
- UV resistant
- chemical resistant

Cost advantages

- no expensive machinery required
- fast assembly process
- reduced re-working
- lower labour costs
- no investment costs

Flexibility

- perfect for metals, plastics, glass...
- joins dissimilar materials
- increases design possibilities
- compensates for differential thermal expansion rates
- can be applied in-house or on-site
- can be die-cut to your requirements

Characteristics



Initial adhesion
Very strong adhesion immediately



Textured surfaces
Capability to conform to textured surfaces



Stress distribution
Reduces point loads associated with mechanical fastenings.



Temperature resistance
Bond withstands high temperatures



Solvent resistance
Capacity to resist chemicals, cleaning agents etc.



Humidity resistance
Withstands harsh weather conditions



HSE* substrates
High level of performance on metals and most plastics
*HSE - High Surface Energy (readily bonded substrates)



LSE* substrates
Level of performance on LSE plastics, powder paints
*LSE - Low Surface Energy (difficult to bond substrates)



Low temperature application
VHB tape can be applied at temperatures as low as 0°C.



Low temperature resistance
Bond withstands very cold temperatures



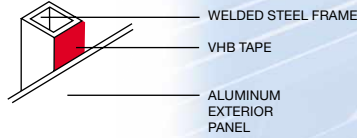
Static load
Good static shear properties

3M™ VHB™ Acrylic Foam Tapes: The industry standard

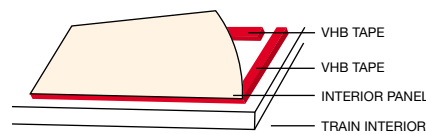
Commercial vehicles

Exterior panels are bonded directly onto the support frame without drilling, screws or welding. No holes means no leakage or corrosion points, and no screws means a flat, smooth finish ideal for perfect application of graphic material onto trucks and buses of all types.

VHB tape also reduces vibration and rattles as well as surface induced galvanic corrosion, and seals the bond to make it totally watertight.



VHB tape dampens vibration for a smoother, quieter ride

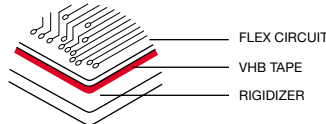


VHB tape bonds the panel to the frame in one operation and provides better aesthetics to the graphics

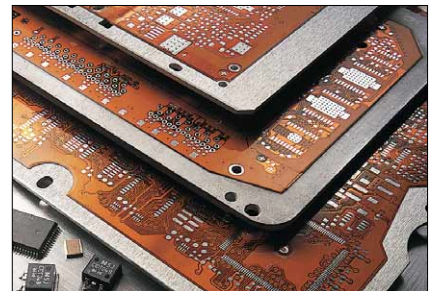


Electronics

Tiny modern electronic products can no longer be constrained by heavy, old-fashioned assembly materials. VHB tape can be precisely die-cut to bond and seal exact shapes, to absorb shock when circuits are fitted to their housing, to guarantee that underwater cameras and lenses are waterproof.... and all this with virtually no weight added to the product.



With their thermal conductivity properties, VHB tapes are perfect for assembly of automotive electronics such as heat sinks

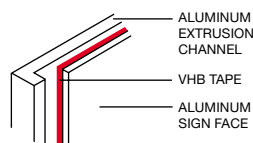


VHB tape bonds the glass window of this electrical cabinet to the metal door without any mechanical fasteners



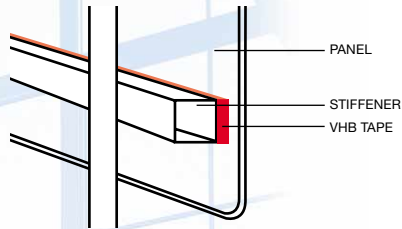
Signs

Signs have greater graphic impact when assembled with VHB tape. Materials are undistorted by drilling, screwing or welding, and extreme weather conditions, e.g. very high winds, and have no effect on the bond. Additionally, as VHB tape bonds dissimilar materials and has very high static load bearing capacities, you can decide exactly how you want your sign to look and the material from which it is made.



VHB tape enables simple, quick and reliable fixing of the sign face to its support for a smooth, clean finish



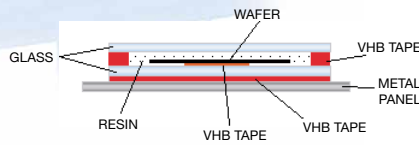


Stiffeners at the back of traffic signs are attached to the main panel with VHB tape. This prevents metal corrosion and allows the use of 3M™ Scotchlite™ reflective films

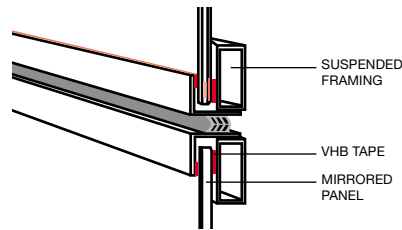


Construction

For internal and external use. VHB™ tape bonds architectural panels seamlessly to their frames and decorative features to the exteriors of windows. VHB tape compensates for different rates of thermal expansion so you are free to choose your materials with one less constraint to worry about.



VHB clear tape is used for bonding modules to solar panels



VHB tape is used in many architectural projects from facade cladding to structural glazing



Imagine the possibilities



We can only show you a few of the VHB tape applications - you may encounter some we haven't seen before.

Have a look around your assembly unit, is someone using welding materials, fasteners or a vibration absorber on a product ?

Call us and we will be delighted to talk to you about how VHB can help improve your production processes.

Important Notice:

The information contained in this brochure is based on tests and data which 3M believes to be reliable, but the accuracy or completeness of such statements and information is not guaranteed. The user is responsible for determining whether a specific 3M VHB tape is suitable for the purpose intended and for the user's method of application. All questions of liability relating to 3M VHB tapes are governed by our terms of sale subject, where applicable to prevailing law.



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Tapes & Adhesives Group 3M United Kingdom PLC

3M House, PO Box 1, Market Place,
Bracknell, Berkshire, RG12 1JU
Customer Support Centre
Tel : 0870 6080 050
Fax : 0870 6070 099
E-mail: tapes&adhesives.uk@mmm.com

Tapes & Adhesives Group 3M Ireland

3M House, Adelphi Centre
Dun Laoghaire
Co. Dublin
Tel : (01) 280 3555
Fax : (01) 280 3509