



VHB™ Acrylic Foam Tapes

4930·4945·4950·4959

Product Information

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Description 3M VHB™ Acrylic Foam Tapes 4930, 4945, 4950 and 4959 are double coated pressure sensitive adhesive tapes for bonding a wide range of high and medium surface energy substrates including metals, glass and some plastics. The firm foam provides superior strength in applications experiencing high dynamic stress.

- Features**
- Excellent adhesion to high surface energy surfaces
 - Flexible to conform to irregular surfaces
 - Cushions and damps vibration
 - High dynamic shear resistance
 - For interior and exterior use

Physical Properties/Typical Performance Characteristics*

Tape carrier	Firm acrylic foam (closed cell)					
Adhesive	4930, 4950, 4959	Firm Acrylic				
	4945	Medium Acrylic				
Tape colour	White					
Tape Thickness	4930	0.64mm				
	4950, 4945	1.1mm				
	4959	3.0mm				
Liner	4930, 4945, 4950	White printed paper				
	4959	Red polyethylene film				
Foam density	4930, 4945	800kg/m ³				
	4959	720kg/m ³				
90° Peel adhesion	4930	350N/100mm				
	4945, 4950	440N/100mm				
	4959	350N/100mm				
Normal Tensile	4930	1100kPa				
	4945, 4950	970kPa				
	4959	520kPa				
Dynamic shear	4930	690kPa				
	4945, 4950	550kPa				
	4959	380kPa				
Static Shear		<u>22°C</u>	<u>66°C</u>	<u>93°C</u>	<u>121°C</u>	<u>177°C</u>
	4930	1500g	500g	500g		
	4945, 4950					
	4959	1500g	1000g	750g	750g	750g
Temperature Resistance	4930, 4945	Short term	149°C			
	4950	Long term	93°C			
	4959	Short term	204°C			
		Long term	149°C			
UV resistance	Excellent					
Solvent resistance	High					

*Not recommended for specification purposes

Test Methods

90° Peel Adhesion: Stainless Steel, 72 hours dwell, Peel speed 305mm/min
Normal Tensile: Stainless Steel, 6.45cm², 72 hours dwell, Jaw speed 50mm/min
Dynamic Shear: Stainless Steel, 6.45cm², 72 hours dwell, Jaw speed 12.7mm/min
Static shear: Weight(grams) that 3.23cm² will hold 10,000 minutes (7 days) at stated temperature

Format	4930 Available in 12.7mm, 19mm and 25.4mm x 66m rolls 4945 Available in 12.7mm, 19mm, 25.4mm and 50.2mm x 33m rolls 4950 Available in 12.7mm, 19mm and 25.4mm x 33m rolls 4959 Available in 12.7mm, 19mm and 25.4mm x 33m rolls
Application Technique	<ul style="list-style-type: none">• Apply between 10⁰C and 40⁰C.• Ensure surfaces to be bonded are clean, dry and well unified.• Most substrates can be cleaned by wiping (in one direction) with a 50/50 IPA/Water mixture.• Where heavy grease or oils are present, 3M Citrus Cleaner or White Spirits should be used to remove the grease. This should always be followed by a wipe with the IPA/Water mixture to remove any residue.• Abrasion or scuffing may enhance adhesion by increasing the surface area. Always follow with a wipe with IPA/Water to remove any residue.• Firm application pressure helps develop better adhesive contact and improves bond strength.
Application ideas	<ul style="list-style-type: none">• Bond metals in truck and trailer assembly• Bond handles to glass• Attaching signs, nameplates and plaques• Bond signs to frames• Attach stiffeners in air conditioners
Testing	Always test the suitability of the product for your application before use.
Shelf life	Store in a dry location out of direct sunlight and away from all sources of heat. Ideal conditions are 20°C and 50% relative humidity. Use within 24 months from date of manufacture.
Health and Safety Information	This product is an “article” and does not require a Material Safety Data Sheet. However MSDSs have been produced for most articles and may be accessed by going to www.3m.com/msds and entering the product number or 3M stock number. Alternatively, contact 3M Customer Services.
Further information	Further information is available at www.3m.com or by contacting 3M Customer Services on Free Phone 0800 200 713 or Free Fax 0800 508 980.
Note	The user is responsible for determining whether the 3M product, surface preparation, and method of assembly are suitable for their particular purpose. Failure to determine the suitability of all factors involved in the application may result in bond failure.

3M

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