VHB™ Tapes

RP16(F) • RP25(F) • RP32(F) • RP45(F) • RP62(F)

Technical Data **April, 2014**

Product Description

3M™ VHB™ Tapes RP16(F), RP25(F), RP32(F), RP45(F) and RP62(F) are double-sided pressure sensitive adhesive tapes for bonding a variety of substrates including many metal, plastic and painted materials.

All tapes are available with a paper or with a polyethylene film liner. For example RP45 has a paper liner and RP45(F) has a film liner.

Product Construction

Adhesive:		Multi-Purpose Acrylic
Adhesive Carrier:		Conformable Acrylic Foam (closed cell)
Thickness:	**3M™ VHB™ Tape RP16(F)**	0.016 in. (0.4 mm)
	3M™ VHB™ Tape RP25(F)	0.025 in. (0.6 mm)
	3M™ VHB™ Tape RP32(F)	0.032 in. (0.8 mm)
	3M™ VHB™ Tape RP45(F)	0.045 in. (1.1 mm)
	3M™ VHB™ Tape RP62(F)	0.062 in. (1.55 mm)
Density:		45 lb./ft.^{3} (720 kg/m^3)
Liner:	**Paper Liner Version:**	White DK paper (red 3M™ VHB™ print)
	Film Liner Version:	Red PE film (white 3M™ VHB™ print)
Tape Color:		Gray

Typical Physical Properties and Performance Characteristics

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Peel Adhesion: (stainless steel)	**3M™ VHB™ Tape RP16(F)**	12 lb./in. width (210 N/100 mm)
	3M™ VHB™ Tape RP25(F)	17 lb./in. width (300 N/100 mm)
	3M™ VHB™ Tape RP32(F)	18 lb./in. width (315 N/100 mm)
	3M™ VHB™ Tape RP45(F)	20 lb./in. width (350 N/100 mm)
	3M™ VHB™ Tape RP62(F)	20 lb./in. width (350 N/100 mm)
Normal Tensile: (alum T-block)	**3M™ VHB™ Tape RP16(F)**	95 lb./in.^{2} (655 kPa)
	3M™ VHB™ Tape RP25(F)	90 lb./in.^{2} (620 kPa)
	3M™ VHB™ Tape RP32(F)	85 lb./in.^{2} (585 kPa)
	3M™ VHB™ Tape RP45(F)	85 lb./in.^{2} (585 kPa)
	3M™ VHB™ Tape RP62(F)	80 lb./in.^{2} (550 kPa)
Dynamic Shear: (stainless steel)	**3M™ VHB™ Tape RP16(F)**	90 lb./in.^{2} (620 kPa)
	3M™ VHB™ Tape RP25(F)	80 lb./in.^{2} (550 kPa)
	3M™ VHB™ Tape RP32(F)	75 lb./in.^{2} (515 kPa)
	3M™ VHB™ Tape RP45(F)	70 lb./in.^{2} (480 kPa)
	3M™ VHB™ Tape RP62(F)	70 lb./in.^{2} (480 kPa)
Static Shear: (stainless steel)	72°F (22°C)	1000 g/0.5 sq. in. (holds 10,000 min.)
	158°F (70°C)	500 g/0.5 sq. in. (holds 10,000 min.)
	200°F (93°C)	500 g/0.5 sq. in. (holds 10,000 min.)
Solvent Resistance:		High
Temperature Resistance:		
Short Term (minutes, hours):		250°F (121°C)
Long Term (days, weeks):		200°F (93°C)

Available Sizes

Standard Length:	**3M™ VHB™ Tapes RP16(F), RP25(F), RP32(F)**	72 yds. (65.8 m)
	3M™ VHB™ Tapes RP45(F), RP62(F)	36 yds. (32.9 m)
Minimum Width:		1/2 in. (12.7 mm)
Slitting Tolerance:		± 1/32 in. (0.8 mm)
Core Diameter (ID):		3.0 in. (76.2 mm)

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Application Guidelines

For maximum bond strength the surfaces should be thoroughly cleaned with a 50:50 mixture of isopropyl alcohol***** and water. Ideal tape application is accomplished when temperature is between 70°F and 100°F (21°C and 38°C) and the bond is allowed to dwell 72 hours. Initial tape application to surfaces at temperatures below 50°F (10°C) is not recommended.

*****Consult manufacturer's directions for use and precautions when using cleaning solvents. This cleaning recommendation may not be compliant with the rules of certain Air Quality Management Districts in California; consult applicable rules before use.

Storage

Store in original cartons at 70°F (21°C) and 50% relative humidity.

Shelf Life

When stored under proper conditions, product retains its performance and properties for 24 months from date of shipment.

Technical Information

The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

Product Use

Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application.

Limited Warranty

3M warrants for 24 months from the date of shipment that 3M™ VHB™ Tape 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 limited 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. AN APPLICATION WARRANTY EXPRESSLY APPROVED AND ISSUED BY 3M IS AN EXCEPTION. THE CUSTOMER MUST APPLY FOR A SPECIFIC APPLICATION WARRANTY AND MEET ALL WARRANTY AND PROCESS REQUIREMENTS TO OBTAIN AN APPLICATION WARRANTY. CONTACT 3M FOR MORE INFORMATION ON APPLICATION WARRANTY TERMS AND CONDITIONS.

Limitation of Remedies and Liability

If the 3M™ VHB™ Tape is proved 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.

ISO 9001

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001 standards.

3M

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