

# 3M

## VHB™ Tape

### 5958FR

Technical Data

December, 2006

**Product Description** 3M™ VHB™ Tape 5958FR is a double-coated 0.040 in. (1.0 mm) pressure sensitive adhesive tape for bonding a wide range of materials, including many metals, plastics and painted substrates. The foam is conformable to increase contact with the surfaces.

<b>Construction</b>	<b>Adhesive:</b>	Modified Acrylic
	<b>Adhesive Carrier:</b>	Acrylic Foam (closed cell)
	<b>Thickness:</b>	0.040 in. (1.0 mm)
	<b>Density:</b>	50 lb./ft. <sup>3</sup> (800 kg/m <sup>3</sup> )
	<b>Liner:</b>	Red polyethylene film
	<b>Tape Color:</b>	Black

- Features**
- Developed to be flame retardant.
  - Meets FAR 25.853 (a) 12 second Vertical Burn Appendix F, Part 1 (a) (ii).
  - Complies with the RoHS Directive. No polybrominated biphenyls (PBBs) or polybrominated diphenyl ethers (PBDEs) are intentionally added.

**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.**

<b>Peel Adhesion:</b> (stainless steel)	20 lb./in. width (440 N/100 mm)	
<b>Normal Tensile:</b> (aluminum T-block)	100 lb./in. <sup>2</sup> (690 kPa)	
<b>Dynamic Shear:</b> (stainless steel)	100 lb./in. <sup>2</sup> (690 kPa)	
<b>Static Shear:</b> (stainless steel,	72°F (22°C)	1000 g/0.5 sq. in. (holds 10,000 min.)
	158°F (70°C)	350 g/0.5 sq. in. (holds 10,000 min.)
	200°F (93°C)	250 g/0.5 sq. in. (holds 10,000 min.)
<b>Solvent Resistance:</b>	High	
<b>Temperature Resistance:</b>	Short Term: (minutes, hours)	300°F (149°C)
	Long Term: (days, weeks)	200°F (93°C)

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<b>Burn Characteristics</b>	• FAR 25.853 (a) 12 sec- Vertical Burn Appendix F, Part 1 (a) (ii)	Pass
	• Toxicity Draeger Tube, ABD0031, AITM 3.005	Pass
	• NBS Smoke Density after 4 minutes Ds@4.0 (Reference ABD0031 and BSS 7238)	Pass
	• ASTM F814, ASTM E662 Flaming Mode (Typical criteria is Ds@4.0 = 200 max)	137

<b>Available Sizes</b>	<b>Standard Length:</b>	36 yds. (32.9 m)
	<b>Minimum Width:</b>	1/4 in. (6.4 mm)
	<b>Slitting Tolerance:</b>	± 1/32 in. (0.8 mm)
	<b>Core Size (ID):</b>	3.0 in. (76.2 mm)

**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° and 100°F (21° 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.

**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 manufacture.

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### Product Use

All statements, technical information and recommendations contained in this document are based upon tests or experience that 3M believes are reliable. However, many factors beyond 3M's control can affect the use and performance of a 3M product in a particular application, including the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Since these factors 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.

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### Limited Warranty

3M warrants for 24 months from the date of manufacture 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.

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### 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 9001:2000**

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001:2000 standards.

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## Industrial Business Industrial Adhesives and Tapes Division

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