



# Polyurethane Protective Tape

## 8681 HS (high shear adhesive)

Technical Data

August, 2002

**Product Description** 3M™ Polyurethane Protective Tape 8681 HS is made from an exceptionally tough abrasion resistant polyurethane elastomer that resists punctures, tearing, abrasion and erosion. It is formulated for resistance to ultraviolet light. Tape 8681 HS provides a simple, easy method of protecting a surface from corrosion, abrasion and minor impact damage. It can be installed in a minimum amount of time with simple tools. It can be painted or applied over painted surfaces. Tape 8681 HS is constructed with a long-aging, solvent resistant, pressure sensitive acrylic adhesive that is protected with an easy release plastic liner.

Tape 8681 HS is available in the following colors:

Matte Clear; 36118 Gray; 36173 Gray; 36251 Gray; 36270 Gray and 36320 Gray

**Typical Physical Properties and Performance Characteristics**

- Notes:** 1) The following technical information and data should be considered representative or typical only and should not be used for specification purposes.  
 2) ASTM = American Society for Testing and Materials.  
 3) Metric values are listed in parenthesis.

**A. Dimensions:**

<b>Approximate Applied Thickness:*</b>	0.012 inch (0.30 mm) Film 0.002 inch (0.06 mm) Adhesive Total thickness 0.014 inch (0.36 mm)
<b>Standard Roll Size:</b>	24 inch x 36 yd (61 cm x 32.9 m)
<b>Available Widths:</b>	1/2 inch to 24 inch (1.25 cm to 61 cm)
<b>Approximate Weight: w/o liner</b>	0.81 lb./yd <sup>2</sup> (405 g/m <sup>2</sup> )

\*Excludes the polyethylene liner that is removed from the tape prior to application.

**B. Typical Physical Properties and Performance Characteristics**

Property	Test Method	Units	Typical Value
<b>Tensile Strength @ Break</b>	ASTM D882	Lb./in. (N/100mm)	87 (1524)
<b>Elongation % @ Break</b>	ASTM D882	%	500
<b>Peel Adhesion @ 70°F (21°C) to: Bare Aluminum Acrylic Enamel Paint ABS Plastic</b>	ASTM D-1000	Oz./in. (N/100mm)	72 (79) 52 (57) 55 (60)
<b>Maximum Service Temperature</b>		°F (°C)	275°F (135°C)

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## General Information

- 3M™ Polyurethane Protective Tape 8681 HS has excellent environmental resistance properties and has been used to isolate and protect substrates from environmental damage and corrosive elements.
- Tape 8681 HS can be used to provide a UV resistant surface coating for indoor and outdoor applications.
- Film 8681 HS may be painted per 3M Technical Bulletin *Polyurethane Protective Tape, Painting Instructions* (70-0702-6357-2).

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## Safety and Regulatory

- Tape 8681 HS is **100%** solids and contains no hazardous air pollutants (HAPs), volatile organic component (VOC's) or materials restricted by applicable regulations or laws. Respiratory protection is not required under normal use conditions.
- Tape 8681 HS meets US Federal and California regulations for landfillable materials. The product is potentially recyclable.
- Packaging materials meet US Federal and California regulations for landfillable materials and are recyclable or reusable.
- This product is considered to be an article that does not release or otherwise result in exposure to a hazardous chemical under normal use conditions.

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## Shipping and Storage

No special/hazardous labeling or packaging required or regulations for air, ground or water shipment for this product.

Keep film in a clean area, away from excessive moisture and out of direct sunlight. Store rolls in the shipping carton. Return partially used rolls to the shipping carton.

Shelf life: Two (2) years from date of manufacture.

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## Precautionary Information

Refer to Product Label and Material Safety Data Sheet for health and safety information before using this product. For additional health and safety information, call 1-800-364-3577 or (651) 737-6501.

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## For Additional Information

To request additional product information or to arrange for sales assistance, call toll free 1-800-362-3550. Address correspondence to: 3M Engineered Adhesives Division, 3M Center, Building 220-8E-05, St. Paul, MN 55144-1000. Our fax number is 651-733-9175. In Canada, phone: 1-800-364-3577. In Puerto Rico, phone: 1-787-750-3000. In Mexico, phone: 52-70-04-00.

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## Important Notice

3M MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of application. Please remember that many factors can affect the use and performance of a 3M product in a particular application. The materials to be bonded with the product, the surface preparation of those materials, the product selected for use, the conditions in which the product is used, and the time and environmental conditions in which the product is expected to perform are among the many factors that can affect the use and performance of a 3M product. Given the variety of factors that can affect the use and performance of a 3M product, some of which 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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## Limitation of Remedies and Liability

If the 3M product is proved to be defective, THE EXCLUSIVE REMEDY, AT 3M'S OPTION, SHALL BE TO REFUND THE PURCHASE PRICE OF OR TO REPAIR OR REPLACE THE DEFECTIVE 3M PRODUCT. 3M shall not otherwise be liable for loss or damages, whether direct, indirect, special, incidental, or consequential, regardless of the legal theory asserted, including, but not limited to, contract, negligence, warranty, or strict liability.

ISO 9002

This Engineered Adhesives Division product was manufactured under a 3M quality system registered to ISO 9002 standards.

**3M**

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