



Polyurethane Protective Tape

8681HS (high shear adhesive)

Technical Datasheet

November 2010

Product Description

3M™ Polyurethane Protective Tape 8681HS is made from an abrasion resistant polyurethane elastomer that resists punctures, tearing, abrasion and erosion. It is formulated for resistance to ultraviolet light. 3M 8681HS Tape 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. 3M 8681HS Tape is constructed with a long-aging, solvent-resistant, pressure-sensitive acrylic adhesive that is protected with an easy-release plastic liner.

3M 8681HS Tape is available in the following colors: Matte Clear, 36118 Gray, 36173 Gray, 36251 Gray, 36270 Gray, 36320 Gray and 36375 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

Approximate Applied Thickness:*	0.012 inch (0.30 mm) Film 0.002 inch (0.06 mm) Adhesive 0.014 inch (0.36 mm) = Total thickness
Standard Roll Length:	36 yd (32.9 m)
Available Widths:	Minimum 1/2 inch Maximum 24 inches (1.25 cm to 61 cm)
Approximate Weight:*	0.81 lb/yd ² (405 g/m ²)

*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
Tensile Strength @ Break:	ASTM D412	lb/in (N/100 mm)	87 (1542)
Elongation % @ Break:	ASTM D882	%	500
Peel Adhesion @ 70°F (21°C) to: Bare Aluminum Acrylic Enamel Paint ABS Plastic	ASTM D-1000	oz/in (N/100 mm)	72 (79) 52 (57) 55 (60)
Max. Service Temperature:		°F (°C)	200°F (93°C)

General Information

- 3M™ Polyurethane Protective Tape has weather resistance properties and has been used to isolate and protect substrates from environmental damage and corrosive elements.
- Polyurethane Protective Tape may be painted per 3M Technical Bulletin, "Polyurethane Protective Tape, Painting instructions". (70-0702-6358-0)

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Safety and Regulatory

- 3M™ Polyurethane Protective Tape is **100%** solids and contains no hazardous air pollutants (HAPs) or volatile organic components (VOCs). Respiratory protection is not required under normal use conditions.
- Polyurethane Protective Tape 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.

Shipping and Storage

No special/hazardous labeling or packaging required and no 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 the date of manufacture or as expressly certified by 3M.

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, please visit www.3M.com/msds or call 1-800-364-3577 or (651) 737-6501.

For Additional Information

In the U.S., call toll free 1-800-235-2376, or fax 1-800-435-3082 or 651-737-2171. For U.S. Military, call 1-866-556-5714. If you are outside of the U.S., please contact your nearest 3M office or one of the following branches:

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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.

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These products were manufactured under a 3M Quality Management System registered to the AS9100 standard.

Aerospace and Aircraft Maintenance Department

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