



Polyurethane Protective Tape

8686

Technical Datasheet

June 2010

Product Description 3M™ Polyurethane Protective Tape 8686 is made from a UV stable polyurethane elastomer that resists punctures, tearing, and abrasion. It is a flame-retardant tape formulated to meet FAR 25.853 for aircraft interiors. It protects the aircraft interior from corrosion and it acts as a smoke and moisture barrier. 3M 8686 Tape is constructed with a pressure-sensitive acrylic adhesive designed to be removable and is protected with an easy-to-release paper liner

3M 8686 Tape is a transparent tape available with a paper liner only.

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:*	0.004 inch (0.10 mm) Film 0.002 inch (0.05 mm) Adhesive 0.006 inch (0.15 mm) = Total thickness
Standard Roll Length:	36 yd (32.9 m)
Available Widths:	Minimum 1/2 inch Maximum 48 inches (1.25 cm to 122 cm)
Approximate Weight:*	0.32 lb/yd ² (171 g/m ²)

*Excludes the paper 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)	32 (560)
Elongation % @ Break:	ASTM D882	%	400
Peel Adhesion @ 70°F (21°C) to:	ASTM D-1000	oz/in (N/100 mm)	
Bare Aluminum 2024 T3	Method A		23 (25)
304 Brite # Stainless Steel	24 hour dwell		20 (22)
BMS 4-20 Type III Floor Panel			30 (33)
Flammability – 12 Second Vertical:	FAR 25.853		
Burn Time	Method A	sec	0
Burn Length	24 hour dwell	in (cm)	2 (5.1)
Drip Extinguish Time		sec	0

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Safety and Regulatory

- 3M™ Polyurethane Protective Tape is **100%** solids and contains no hazardous air pollutants (HAPs), 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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This product was manufactured under a 3M quality standard registered under AS9100 standards.

Aerospace and Aircraft Maintenance Department

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