



# Polyurethane Protective Tape

## 8686

Technical Data Sheet

October, 2007

**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™ Polyurethane Protective Tape 8686 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

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

\*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
<b>Tensile Strength @ Break</b>	ASTM D882	lb/in (N/100 mm)	32 (560)
<b>Elongation % @ Break</b>	ASTM D882	%	400
<b>Peel Adhesion @ 70°F (21°C) to:</b>			
<b>Bare Aluminum 2024 T3</b>	ASTM D-3330	oz/in (N/100 mm)	23 (25)
<b>304 Brite # 7 Stainless Steel</b>	Method A		20 (22)
<b>BMS 4-20 Type III Floor Panel</b>	24 hour dwell		30 (33)
<b>Flammability – 12 Second Vertical:</b>			
<b>Burn Time</b>		sec	0
<b>Burn Length</b>	FAR 25.853	in (cm)	2 (5.1)
<b>Drip Extinguish Time</b>		sec	0

# Technical Data Sheet

## Polyurethane Protective Tape 8686

---

### Safety and Regulatory

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

---

### Precautionary Information

Refer to Product Label and Material Safety Data Sheet ([www.3M.com/msds](http://www.3M.com/msds)) for health and safety information before using this product. For additional health and safety information, 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:

<b>Australia</b> 61-2-498-9711 tel 61-2-498-9710 fax	<b>Austria</b> 01-86686-298 tel 01-86686-229 fax	<b>Brazil</b> 55 19 3838-7876 tel 55 19 3838-6892 fax	<b>Canada</b> 800-410-6880 ext. 6018 tel 800-263-3489 fax
<b>China</b> 86-21-62753535 tel 86-21-62190698 fax	<b>Denmark</b> 45-43-480100 tel 45-43-968596 fax	<b>France</b> 0810-331-300 tel 30-31-6195 fax	<b>Germany</b> 02131-14-2344 tel 02131-14-3647 fax
<b>Italy</b> 02-7035-2177 tel 02-7035-2125 fax	<b>Japan</b> 03-3709-8245 tel 03-3709-8743 fax	<b>Korea</b> 02-3771-4114 tel 02-786-7429 fax	<b>Netherlands</b> 31-71-5-450-272 tel 31-71-5-450-280 fax
<b>South Africa</b> 11-922-9111 tel 11-922-2116 fax	<b>Spain</b> 34-91-321-6000 tel 34-91-321-6002 fax	<b>Switzerland</b> 01-724-9114 tel 01-724-9068 fax	<b>United Kingdom</b> (0) 161-237-6174 tel (0) 161-237-3371 fax

---

### 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.

---

### 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.

---

This product was manufactured under a 3M quality standard registered under AS9100 standards.



#### Aerospace and Aircraft Maintenance Division

3M Center, Building 223-1N-14  
St. Paul, MN 55144-1000  
1-800-235-2376  
[www.3M.com/aerospace](http://www.3M.com/aerospace)

Please Recycle. Printed in U.S.A.  
©3M 2007 (10/07)  
60-9700-0206-3

3M is a registered trademark of 3M.