



# 8672 Outdoor Grade Polyurethane Protective Tape

## Product Data Sheet

Updated : November 1995  
Supersedes : October 1994

### Product Description

8672 is made of exceptionally tough, abrasion resistant polyurethane formulated especially for its excellent resistance to ultraviolet light.

8672 may be applied over painted surfaces and show little or no discoloration after prolonged periods of environmental exposure.

8672 comes coated with a long-ageing solvent resistant, pressure sensitive acrylic adhesive, protected with an easy release liner.

### Physical Properties

Not for specification purposes

<b>Adhesive Type</b>	Pressure Sensitive Firm Acrylic	<b>3M ref :</b>
<b>Liner</b>	Paper	
<b>Thickness</b> (ASTM D-3652) Tape (Without Liner)	0.20 mm	
<b>Tape Colour</b>	Glossy Transparent	
<b>Tolerance</b>	±0.025 mm	
<b>Density</b>	1057 kg/m <sup>3</sup>	
<b>Shelf Life</b>	12 months from date of despatch by 3M when stored in the original carton at 21°C (70°F) & 50% Relative Humidity	

### Performance Characteristics

Not for specification purposes

<b>Adhesion</b> ASTM-D1000 24-hour dwell at room temp; 180° peel at 12"/minute	<b>Glass</b> 6.1 N/10mm	<b>Aluminium</b> 6.6 N/10mm
	<b>Acrylic Enamel</b> 4.8 N/10mm	<b>ABS Plastic</b> 5.5 N/10mm

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**Performance  
 Characteristics Cont...**  
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<b>Tensile Strength</b> ASTM-D882 2" jaw separation and 6in/mm crosshead rate	700 N/100mm											
<b>Elongation at Break</b> ASTM-D882 2" jaw separation and 6in/mm crosshead rate	500 %											
<b>Tear Strength</b> ASTM-1938	0.8 kg											
<b>Taber Abrasion</b> ASTM-C501 H18, 1 Kg 1000 cycle	Wt, loss 0.10 g.											
<b>Hardness Shore A</b> ASTM-D2240	80											
<b>Dielectric Strength</b> ASTM-D1000	9,711 Volts											
<b>Solvent Resistance</b>	<p>There is little or no effect after 24 hours immersion in the following solvents when applied to bonded steel unless otherwise stated (* Slight edge lifting)</p> <table> <tr> <td>Auto Oil</td> <td>Distilled Water</td> </tr> <tr> <td>Regular Gasoline*</td> <td>Unleaded Gasoline*</td> </tr> <tr> <td>Diesel Fuel*</td> <td>JP-4 Jet Fuel*</td> </tr> <tr> <td>JP-5 Jet Fuel*</td> <td>Mil 5606-D Hydraulic Fluid</td> </tr> <tr> <td>Unleaded Gas with w/10%ethanol*</td> <td></td> </tr> </table>		Auto Oil	Distilled Water	Regular Gasoline*	Unleaded Gasoline*	Diesel Fuel*	JP-4 Jet Fuel*	JP-5 Jet Fuel*	Mil 5606-D Hydraulic Fluid	Unleaded Gas with w/10%ethanol*	
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**Environmental  
 Exposure**  
 Not for specification purposes

<b>Low Temperature Flexibility</b> ¼" Mandrel bend	No cracking after 24 hours at -60°F (-51°C)	
<b>Maximum Service Temperature</b>	Film softens above this limit. 275°F 135°C	
<b>Dimensional Stability</b> % shrinkage after 30 minutes at 250°F (120°C)	1.0 or less	
<b>Florida</b> 12 months @ 5° South exposure	Negligible discoloration and little or no gloss loss.	
<b>Arizona</b> 12 months @ 45° South exposure	Negligible discoloration and little or no gloss loss.	

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### Application Techniques

1. Bond strength is dependent upon the amount of adhesive-to-surface contact developed. Firm application pressure develops better adhesive contact & thus improves bond strength.

2. To obtain optimum adhesion, the bonding

surfaces must be clean dry and well unified. A typical surface cleaning solvent is isopropyl alcohol & water. Use proper safety precautions for handling solvents.

3. Ideal tape application temperature range is 21°C to 38°C (70°F to 100°F).

Initial tape application to surfaces at temperatures below 10°C (50°F) is not recommended because the adhesive becomes too firm to adhere readily. However once properly applied low temperature holding is generally satisfactory.

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### Applications

This tape is used in military, commercial, business and private aviation lead edge" protection against particle and rain erosion.

8672 can easily be die-cut to exacting shapes and is paintable, printable and thermoformable. Care should be taken when handling die-cut shapes to prevent them from sticking together ("face to face").

It is recommended that they be stacked with liner side to film side of adjacent pieces.

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### Additional Product Information

Polyurethane Protective Tapes are a fast and exact way to provide exceptionally tough surface protection on metals, woods and plastics.

They are made from a highly durable thermoplastic elastomer and pre-coated with either a natural rubber or high performance acrylic adhesive.

They conform well to curvatures, can be pre-cut into convenient shapes and can even be painted or printed over without priming.

3M is a trademark of the 3M Company.

Values presented have been determined by standard test methods and are average values not to be used for specification purposes. Our recommendations on the use of our products are based on tests believed to be reliable but we would ask that you conduct your own tests to determine their suitability for your applications.

This is because 3M cannot accept any responsibility or liability direct or consequential for loss or damage caused as a result of our recommendations.



### Specialty Tapes & Adhesives

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