



# 8561 Indoor Grade Polyurethane Protective Tape

---

## Product Data Sheet

---

Updated : March 1996  
Supersedes : November 1995

---

### Product Description

8561 is made of exceptionally tough, abrasion resistant polyurethane designed primarily for indoor industrial type applications.

8561 is pre-coated with acrylic adhesive for long term applications.

---

### Physical Properties

Not for specification purposes

<b>Adhesive Type</b>	Acrylic	<b>3M ref :</b>
<b>Liner</b>	Paper	
<b>Thickness</b> (ASTM D-3652) Overall	0.36 mm	
<b>Tape Colour</b>	Glossy Transparent	
<b>Tolerance</b>	±0.035 mm	
<b>Density</b>	1090 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> 4.5 N/10mm	<b>Aluminium</b> 4.5 N/10mm
	<b>Acrylic Enamel</b> 3.4 N/10mm	<b>ABS Plastic</b> 4.2 N/10mm

Date : March 1996  
 8561 Indoor Grade  
 Polyurethane Protective Tape

**Performance  
 Characteristics Cont...**  
 Not for specification purposes

<b>Tensile Strength</b> ASTM-D882 2" jaw separation and 6in/mm crosshead rate	1313 N/100mm											
<b>Elongation at Break</b> ASTM-D882 2" jaw separation and 6in/mm crosshead rate	400 %											
<b>Tear Strength</b> ASTM-1938	3.1 kg											
<b>Taber Abrasion</b> ASTM-C501 H18, 1 Kg 1000 cycle	Wt, loss 0.10 g.											
<b>Hardness Shore A</b> ASTM-D2240	85											
<b>Dielectric Strength</b> ASTM-D1000	12,500 Volts											
<b>Solvent Resistance</b>	<p>There is little or no effect after 24 hours immersion in the following solvents when applied to bonderised 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*	
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*												

**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. 300°F 149°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	Discoloration and loss of surface gloss.	
<b>Arizona</b> 12 months @ 45° South exposure	Discoloration and loss of surface gloss.	

Date : March 1996  
8561 Indoor Grade  
Polyurethane Protective Tape

---

### 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.

---

### Applications

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

8561 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.

---

### 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

3M United Kingdom PLC  
3M House,  
28 Great Jackson Street,  
Manchester,  
M15 4PA

Customer Service :  
Tel 0161 236 8500  
Fax 0161 237 1105

3M Ireland  
3M House, Adelphi Centre,  
Upper Georges Street,  
Dun Laoghaire, Co. Dublin,  
Ireland

Customer Service :  
Tel (01) 280 3555  
Fax (01) 280 3509

© 3M United Kingdom PLC 1996