

# Polyurethane Protective Tape

## Preparation and Application Instructions

### General Use

#### Tools and Materials Required

1. Clean, lint-free cotton rags or equivalent
2. Isopropyl alcohol\*
3. Plastic application squeegee
4. Razor blade safety knife to cut tape
5. 3M™ 391X Air Release Tool
6. Hypodermic needle
7. 3M™ Protective Tape Application Solution (1 Quart)



#### General Cleaning and Surface Preparation

All substrates should be considered contaminated and must be cleaned prior to application of 3M™ Polyurethane Protective Tape. The recommended procedure is as follows:

1. Thoroughly wash and clean hands before handling tape
2. Saturate a clean cotton cloth isopropyl alcohol\* and wipe the substrate surface
3. Dry with a lint free cloth before the solvent evaporates from the surface

#### Specific Application Surfaces

##### A. Aircraft Polyurethane Paint Surfaces

**Note:** Paint must be fully cured before applying 3M Polyurethane Protective Tape. (Minimum of 24 hrs. @ 75°F)

1. Mask application area with 3M 471 Vinyl Tape
2. Follow General Cleaning and Surface Preparation procedure above
3. Sand with 320 grit sandpaper to achieve a smooth surface
4. Thoroughly wipe with isopropyl alcohol\* until there is no trace of residue

**Note:** 3M™ Adhesion Promoter 86A should be used on critical applications where the user has determined its suitability.

##### B. Unpainted Metal Surfaces

1. Aluminum (etched, anodized), stainless steel, nickel and many other metal surfaces require only isopropyl alcohol\* before application of 3M Polyurethane Protective Tape.

**\*Note:** When using solvents and other chemical products, extinguish all ignition sources, including pilot lights, and follow the manufacturer's precautions and directions for use.

## Application Instructions

### A. Surface preparation

See General Cleaning and Surface Preparation above.

### B. Temperature

The protective tape can be applied when air and application temperatures are above 60°F (16°C).

**\*\*Do NOT apply in direct sunlight\*\***

**C. Liner removal** – Depending on size and shape, all or a portion of the protective liner should be removed from the polyurethane protective tape before the start of the application. NOTE: (HANDS MUST BE KEPT CLEAN AT ALL TIMES.)

### D. Dry Application Method

1. Pieces smaller than one square foot (0.1 sq. meter)
  - i. Remove entire liner from adhesive side of tape.
  - ii. Align film and press one edge to surface with finger.
  - iii. With plastic applicator, squeegee remaining unapplied portion using firm overlapping strokes.
2. Long, narrow (4" or less) sections.
  - i. Apply as above except remove only 12 inches of liner at a time.

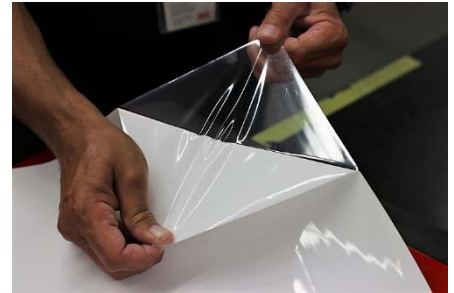
### E. Wet Application Method (recommended method)

This method is designed to facilitate the application of large (> 6" [150 mm] width) or special shapes in order to help prevent pre-adhesion which could result in wrinkles, creases, blisters and bubbles in the polyurethane protective tape.

1. Mark correct position of film on application surface using 3M™ Vinyl Tape 471.
2. Remove liner and coat adhesive side with wetting solution.
3. Thoroughly spray surface with wetting solution.
4. Position tape and spray wetting solution on tape surface to prevent squeegee from sticking.
5. Squeegee from top of tape to bottom using firm, overlapping strokes to smooth out tape. Dry entire area with rag. Work out blisters with the plastic applicator, or pull pack.
6. Trim with a sharp razor blade being careful not to cut into the application surface.
7. Allow applied protective tape to dwell overnight and check for blisters. Re-squeegee and remove blisters if present.

### F. Removal of Entrapped Air or Wetting Solution

If dry air bubbles are present after the application, puncture tape at one end of blister with a pin and press out air with squeegee or thumb toward puncture. If a wet application bubble is present, remove liquid with a hypodermic needle.



*\*These products were manufacture under a 3M Quality Management System registered to the AS9100 standard*

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Film Installation Instruction

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