3M™ Sealant and Tape Applicator Tools Use and Installation Guidelines

Instruction Bulletin
Revision A, June 2025

This Technical Bulletin provides an overview of use and installation techniques for the 3M Safety & Security Window Film products as defined in this Bulletin. Prior to initial product selection, always refer to current 3M Technical Data Sheets and 3M Technical Specifications for more detailed product information and specifications.

Overview of Installation Tools

3M™ Sealant and Tape Applicator Tools ("3M STA") are engineered for the application of 3M™ Impact Protection Attachment Sealant ("3M IPA") on most windows with a 2 in. (5.1 cm) reveal. The 3M STA portfolio of application tools includes the following:

- 3M™ Sealant and Tape Applicator STA - T (taping tool)
- 3M™ Sealant and Tape Applicator STA - V (volume nozzle)
- 3M™ Sealant and Tape Applicator STA - L (left-handed sealant applicator tool)
- 3M™ Sealant and Tape Applicator STA - R (right-handed sealant applicator tool)

The tools are designed to produce a 7/8 in. by 5/8 in. (22.2 mm by 15.9 mm) triangular bead of caulk in the corner of a window with a frame of appropriate size. These tools provide a more consistent bead size and contribute to the ease of application.

Film Installation

Follow 3M™ Safety & Security Window Films Installation Guidelines, Technical Bulletin. Only apply 3M IPA *after* installation of 3M window film.

Project Site Considerations

- Allow the window film to dry for at least seven days before installing 3M IPA. If residual moisture from is still visible near the edges of the film, wipe it dry, wait an additional seven days, and check again.
- Test for good adhesion of 3M IPA to the frame:
  1. Apply a 1/4 in. thick bead of IPA onto the frame, extending onto a piece of tape by several inches.
  2. Wait 14 days.
  3. Grab the tape and pull up to remove the IPA from the frame until either the IPA removes cleanly from the frame (poor adhesion) or the IPA splits and leaves IPA on the surface (good adhesion). Contact a 3M sales representative or application engineer with questions.
- Ensure the work area is clean, dry, and free of obstacles.

Tools

The following list of materials is typical for most applications, but additional materials and safety and/or personal protective equipment may be required based on site conditions and the intended application. See the "Health and Safety" section on page 5.

- 3M™ Impact Protection Attachment Sealant
- Caulk gun (cordless or manual)
- ScotchBlue™ Painter's Tape #2090 or other masking tape
- Rubbing alcohol or a 70% isopropyl alcohol and 30% water solution
- Lint-free toweling
- Rubber nitrile gloves
- Small squeegee or putty knife, trimmed to size with scissors or utility knife
- Dry erase marker (optional)
- 3M sealant and tape applicator tools (see Figure 1)



3M™ STA-T (taping tool) 3M™ STA-V (volume nozzle) 3M™ STA-L (lefthand) 3M™ STA-R (righthand)

Figure 1. 3M Sealant and Tape Applicator Tools

Window Preparation

NOTE

3M does NOT assume liability for any damage that may be incurred during window preparation.

NOTE

Do NOT:

- Spray soapy water or glass cleaners onto the frame, as their residue could reduce IPA strength.
- Use any abrasive cleaners or tools on the film/glass surface.

1. Ensure there is adequate space on the frame to allow for the proper amount of IPA contact with the frame. This minimum "distance" of IPA varies depending on the intended use or purpose of the IPA (e.g., 1/2 in. for blast mitigation). See Table A on page 2.
2. Spot clean the frame as necessary with more aggressive tools or cleaners, such as a synthetic steel wool pad.
3. Clean the frame and the first several inches of film with rubbing alcohol generously applied to lint-free toweling.
4. Immediately wipe the surfaces dry with clean lint-free towels.
5. Consult with the building owner or project manager to determine if trimming of the window gasket is desireable. Such trimming is optional and may impact the stability of the glass.

NOTE

Damage may occur if installers do not use [roper methods and tools during window preparation, including scratches to the glass surface, seal failure, or weakening of the glass and its surrounding structure.

6. Have a plan for proper disposal of extra IPA, liquids, masking tape and toweling waste.

3M IPA Sealant Installation

NOTE

Determine if the 3M STA tools will provide a large enough bead of 3M IPA sealant according to the minimums specified in Table A. The 3M IPA minimum required dimension stated in Table A must be on the film and the frame beyond any window gasket material (i.e., a 1/2 in. [12.7 mm] minimum beyond the gasket for Blast Mitigation application). When using 3M STA tools, note the widest acceptable gasket dimension for each application.

Table A. 3M IPA Minimum Requirements

Application(s)	Minimum 3M IPA Bead Size Beyond Window Gasket Edge	Widest Acceptable Window Gasket
Blast Mitigation	1/2 in. (12.7 mm)	3/8 in. (9.5 mm)
Windstorm Debris, Break & Entry	3/8 in. (9.5 mm) (See Figure 3.)	1/2 in. (12.7 mm)
Spontaneous Glass Breakage, Seismic	1/4 in. (6.4 mm)	5/8 in. (15.9 mm)

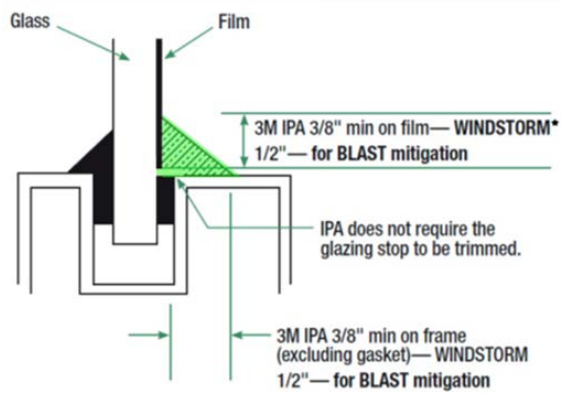


Figure 2.

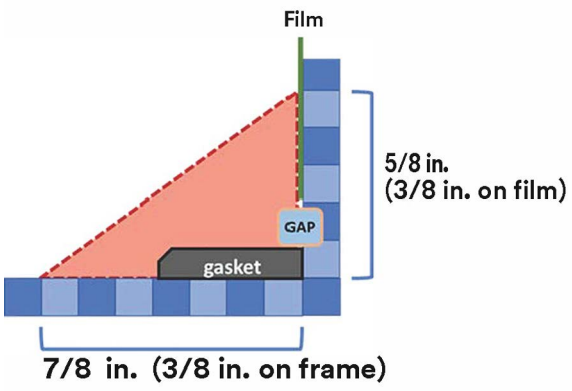


Figure 3. Dimensions for Windstorm or Break & Entry Applications with a 1/2 in. (12.7mm) Window Gasket

1. Apply drop cloths to protect the work area from any excess 3M IPA.
2. Apply a 2 in. (48 mm) strip of ScotchBlue™ Painter's Tape #2090 or other masking tape to all four sides of the film surface. Users can (1) apply the tape adjacent to the 3M™ STA-T; or (2) lightly mark the film with a dry erase marker adjacent to the 3M™ STA-T tool. Apply the masking tape just covering the dry erase marks.

NOTE

The 3M™ STA-T tool has a channel that fits over the gasket and arrow that points to the glass side to help users position the tool properly. See Figures 4 and 5.

NOTE

When using the 3M™ STA-R (right hand) tool, it is best to have the tape overlap in a clockwise direction on the film.

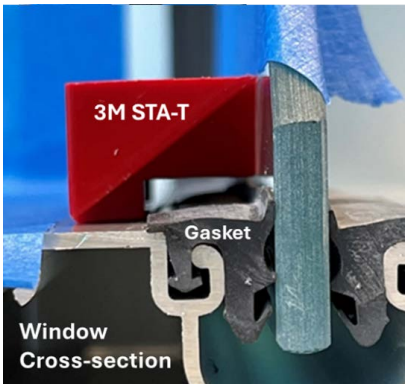


Figure 4.

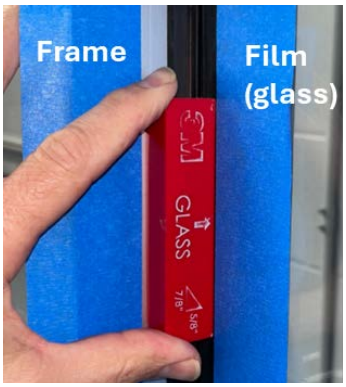


Figure 5.

3. Repeat Step 2, this time applying the masking tape to all sides of the surface of the frame. (See Figure 6.) The space between the pieces of tape allows users to apply a uniform sealant bead to the glass/frame interface and dispense the proper amount of 3M IPA.



Figure 6.

4. Clean the 3M IPA application surface with rubbing alcohol on a lint-free towel, wiping the window frame and the film.
5. Immediately dry the surface with a clean lint-free towel.
6. Load a tube of 3M IPA into the caulk gun and cut a small slit in the tube.
7. Install the 3M™ Sealant & Tape Applicator STA-V Volume Nozzle on the caulk gun.
8. Apply a triangular bead of IPA sealant around the entire frame in the area between the two pieces of tape.
   - Apply ample IPA in the corners as it is easier to squeegee outward than to push IPA into the corners.
   - **KEY STEP:** Hold the caulk gun at a 90-degree angle to the 3M IPA bead when applying 3M IPA to the straight areas (i.e. parallel to the floor when caulking the sides). See Figure 7. This helps apply the correct amount of 3M IPA. Move at a slow consistent pace to avoid creating any gaps in the IPA bead.
   - The 3M™ STA-V acts like a squeegee tool if held at a 90-degree angle as in Figure 8.

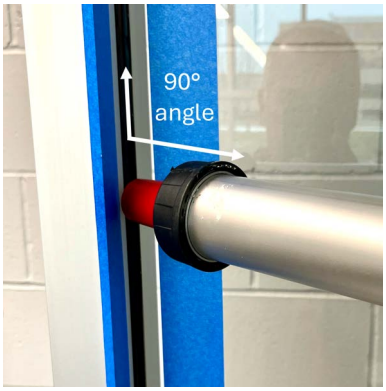


Figure 7.

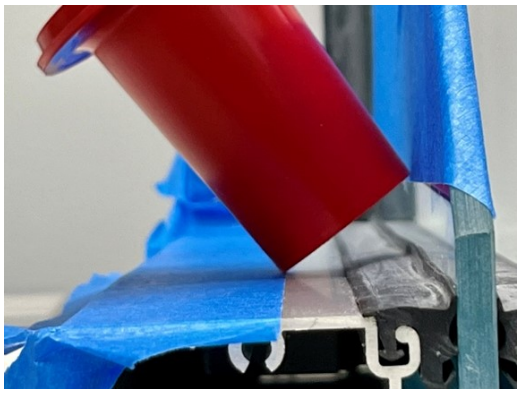


Figure 8.

9. Firmly press the 3M Sealant & Tape Applicator STA-R or STA-L into the frame and glass, contacting both, to allow the tool to produce a 7/8 in. by 5/8 in. (22.2 by 15.9 mm) bead shape.
10. Maintaining good contact, slowly slide the tool in the arrow direction. The STA-R tool, shown below, is to be used in the right hand, pushing the tool to the left across the body. (The STA-L tool is the inverse.)



Figure 9.

11. Upon reaching the corner, stop and rotate the tool backwards on the tool's pivot point (flat edge) until the tool is at a 90° angle from the frame edge and parallel to the next frame surface (see Figure 11). Continue to maintain firm contact with the glass at the flat edge.
12. Press the tool into the corner and reestablish solid contact with the glass and frame (see Figure 11).
13. Continue applying 3M IPA to the next side in the direction of the arrow on the tool. Continue until all 3M IPA is applied to all four sides of the frame and film.

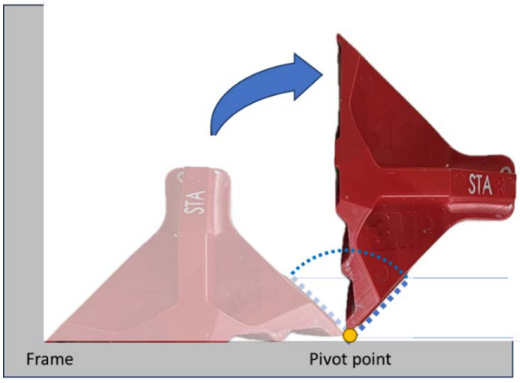


Figure 10.

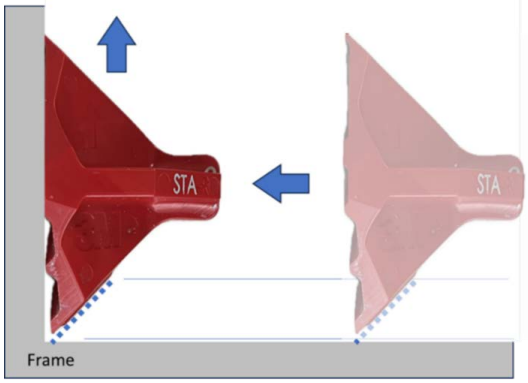


Figure 11.

14. Fix any rough areas with a spatula tool (about 1 in. [2.5 cm] wide), as needed.

NOTE

Squeegee the 3M IPA within the tack time before a skin forms on the surface of the 3M IPA (approximately 10 to 15 minutes).

15. Remove the masking tape strips from the glass/frame immediately after application. Do NOT allow excess sealant to contact the film, frame, or floor. Do NOT step on sealant or transfer it to surrounding surfaces.



Figure 12.

NOTE

Clean off any excess 3M IPA from the surrounding surfaces (including frames and windows) by wiping up the bulk of the 3M IPA with paper towels. Rubbing alcohol can also be used as needed.

NOTE

3M IPA can take 21 days or more to cure depending on the environment's temperature and relative humidity.

NOTE

Do NOT touch the 3M IPA for at least 36 hours following the installation.

16. Properly dispose of all extra 3M IPA, liquids, masking tape, and toweling waste.

Health and Safety

⚠ WARNING

To help reduce the risk of personal injury and/or property damage associated with glass breakage, when working on or near glass surfaces, always use appropriate personal protective equipment and follow the Technical Bulletin "3M™ Window Film Glass Checklist" to identify the risk of glass breakage associated with the application of window film to glass surfaces.

⚠ WARNING

When using any equipment, tools, or cleaning solutions in connection with the processing and application of this Product, always follow the manufacturer's container labels and/or instructions for safe operation.

Chemicals

When handling any chemical products, read the manufacturers' container labels and the Safety Data Sheets (SDS) for important health, safety, and environmental information.

Follow this link to obtain SDS sheets for 3M products.

Follow this link to obtain information about substances of very high concern (SVHC) for EU products.

Important Product Notices

CAUTION: While 3M™ Window Films, when applied in accordance with 3M instructions, may help reduce the impact of flying glass shards under certain conditions and potentially delay intruders, **THESE FILMS DO NOT PREVENT PROPERTY DAMAGE, PERSONAL INJURY, OR DEATH. WINDOW FILMS ARE NOT BULLETPROOF AND NOT DESIGNED TO STOP INTRUDERS**.

CAUTION: Although certain 3M™ Window Films help block a certain percentage of UVA and UVB radiation and may have received The Skin Cancer Foundation Seal of Recommendation, the efficacy of these films in protecting against skin cancer has not been tested by 3M and **3M™ WINDOW FILMS DO NOT PREVENT SKIN CANCER**.

IMPORTANT PRODUCT AND APPLICATION LIMITATIONS

Many factors can contribute to potential hazards and damages arising from wind, impact, seismic, explosion, or break and entry incidents, including the window film selected, type and thickness of glass, building construction, exterior pressure, proximity of impact occurrence, quality of window or door frames, intruder size and strength, and type of tools used to gain entry. Certain 3M™ Window Films require the use of 3M™ Impact Protection Attachment (IPA) Sealant on glass window and door frames for windstorm, break & entry, and explosion mitigation applications and for spontaneous glass breakage applications on single pane tempered glass. The sealant may also be recommended for certain other spontaneous glass breakage, safety glazing, and seismic applications. Always refer to the 3M Technical Data Sheets and 3M Technical Specifications to determine whether these combinations are required. **Always consult with security professionals and a 3M Authorized Window Film Dealer prior to selecting any window films to determine suitability for the intended application.**

IMPORTANT STATE OF FLORIDA NOTICE

This product is not approved in the State of Florida for use as hurricane, windstorm, or impact protection from wind-borne debris from a hurricane or windstorm. In compliance with Florida Statute 553.842, this product may not be advertised, sold, offered, provided, distributed, or marketed in the State of Florida as hurricane, windstorm, or impact protection from wind-borne debris from a hurricane or windstorm.

Warranty Information

Technical Information

Technical information, guidance, and other statements provided by 3M are based upon records, tests, or experience that 3M believes to be reliable, but the accuracy, completeness, and representative nature of such information is not guaranteed. Such information is intended for people with knowledge and technical skills sufficient to assess and apply their own informed judgment to the information. No license to any intellectual property rights is granted or implied with respect to this technical information.

Product Selection and 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. Customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's application, including conducting a workplace hazard assessment, reviewing all applicable regulations and standards, and reviewing the product label and use instructions. Failure to properly evaluate, select, and use a 3M product in accordance with instructions or to meet all applicable safety regulations may result in injury, sickness, death, and/or harm to property.

Warranty, Limited Remedy, and Disclaimer

Unless a different warranty is specifically stated on the applicable 3M product packaging or product literature (in which case such warranty governs), 3M warrants that each 3M product meets the applicable 3M product specification at the time 3M ships the product. Please refer to the Warranty Bulletin for 3M™ Window Films (Flat Glass Applications) and 3M™ Impact Protection Attachment (IPA) Sealant for complete details on warranty coverage, which can be obtained by contacting your 3M Authorized Window Film Dealer or your local 3M sales representative. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTY OR CONDITION OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE. If a 3M product does not conform to this warranty, the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price.

Limitation of Liability

Except for the limited remedy stated above, and except to the extent prohibited by law, 3M will not be liable for any loss or damage arising from or related to the 3M product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity), regardless of the legal or equitable theory asserted, including, but not limited to, warranty, contract, negligence, or strict liability.

Commercial Branding and Transportation
3M Center, Building 223-3N-30
St. Paul, MN 55144

1-800-328-1684
3M.com/windowfilm

© 3M 2025. All rights reserved.
3M and ScotchBlue are trademarks of 3M.
Used under license in Canada.
All other trademarks are property of their respective owners.
Revision A, June 2025 Please recycle.