Product Features and Benefits

3M™ Safety & Security Impact Protection Attachment (IPA) Sealant is a liquid caulk edge retention system designed to hold the 3M Safety and Security Window film in place to help provide additional impact protection from a variety of sources including bomb blasts, extreme weather and forced entry events. The 3M Impact Protection System (film + IPA) helps protect against personal injury from flying glass.

- Excellent tear, elongation and tensile strength
- Anchors the filmed glass to the window frame
- Available in Black, White and Gray



Film Installation

- Follow 3M Window Film Flat Glass Installation instructions (found on 3M Dealer Advantage site).

Project Site Considerations

- Ensure the work area is clean, dry and free of obstacles. Window film should be allowed to dry for at least 14 days before installing IPA. If residual moisture from film installation is visible near edges of film, wipe dry, wait an additional 7 days and check again.
- To ensure good adhesion, apply a 1/2" bead of IPA on the frame and onto a piece of tape. After 14 days, grab the IPA on the tape and pull 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 your 3M sales representative or 3M Application Engineer with questions.

Materials

- 3M™ Impact Protection Attachment Sealant (Black, Gray or White)
- Caulk gun (electric or manual) and nozzle
- Small squeegee or putty knife, trimmed to size with scissors or utility knife
- Masking tape (3M™ ScotchBlue™ Painter's Tape #2090 works well)
- Cutting tool(s) such as retractable utility knife and scissors
- 3M™ Super Fine Synthetic Steel Wool Pad (optional)
- Rubbing Alcohol (or 2 parts Isopropyl Alcohol to 1 part water)
- Lint-free toweling
- Rubber nitrile gloves
- Thin tip permanent marker (optional)

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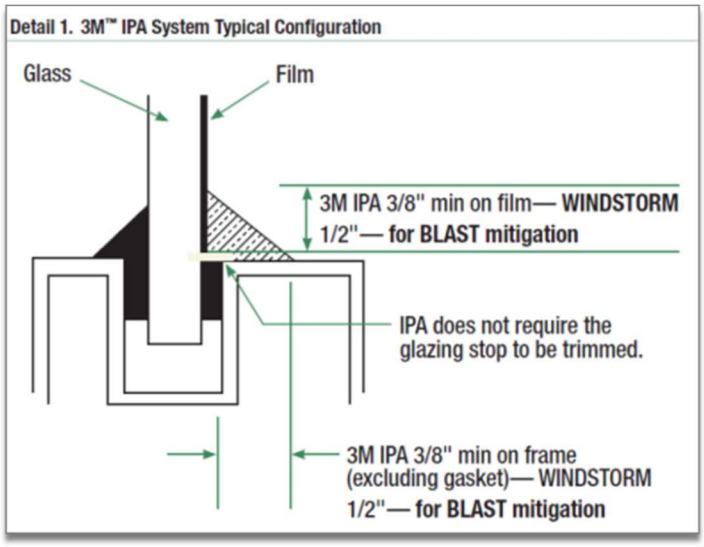
Window Prep

- Ensure window frame and film surfaces are dry and free of dirt, debris, dust and grease. Remove any contaminants on frame surface with rubbing alcohol.
    - (Spot cleaning may be required with other more aggressive cleaners or tools, such as a synthetic steel wool pad, as required prior to cleaning with the rubbing alcohol.)
    - Apply rubbing alcohol generously to lint-free toweling and wipe the frame and several inches onto the film.
    - Immediately wipe dry with a clean lint-free towel.
- IPA requires a clean, dry and smooth frame surface to bond properly.
- Do NOT spray soapy water or common glass cleaners to clean the frame as their residue could reduce IPA bond strength.
- As needed, consult with building owner or project manager prior:
    - 3M does not assume liability for any damage that may be incurred during cleaning.
    - Trimming of the gasket is optional but in some cases could impact stability of the glass.
    - Consult local air quality rules before use.
    - Have a plan for proper disposal of extra IPA, masking tape and toweling waste.
- Do NOT use any abrasive cleaners or tools on the film/glass surface.
- Ensure that 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 inch for blast mitigation in Detail 1, below).



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3M™ Impact Protection Attachment (IPA) Sealant Installation

1. Apply a 2 in. (48 mm) strip of 3M™ Masking Tape to the film surface ensuring that the tape is the required “distance” from the edge of the film along all four sides. **Note**: This “distance” will depend on the intended use (e.g. 1/2 inch for blast mitigation in **Detail 1**, above). You can measure as you apply the tape, or prior you can lightly mark the distance on the film with a marker the same color as the IPA (to hide the mark).

2. Apply a 2 in. (48 mm) strip of 3M Masking Tape to the window frame ensuring that the tape is the required “distance” from the edge of the gasket. Trimming the gasket is optional, but tape should be applied at the “distance” from the gasket edge. **Note**: This “distance” will depend on the intended use (e.g. 1/2 inch for blast mitigation). You can measure as you apply the tape, or prior you can lightly mark the distance on the frame with a marker.

Note: The space between the parallel pieces of tape will allow a uniform sealant bead to be applied to the glass/frame interface, resulting in the proper amount of IPA on the frame and on the film (“distance” required).

3. Prepare squeegee tools to smooth the IPA. A good option is a plastic putty knife cut to the dimension between the masking tape so that the spatula edges make contact with the edges of the masking tape. Cut a slightly wider tool that fits the corners. (see red dotted lines in images)

4. Prepare the caulk gun nozzle with a flat opening (no angle) so that the nozzle edges make contact with the edges of the masking tape.



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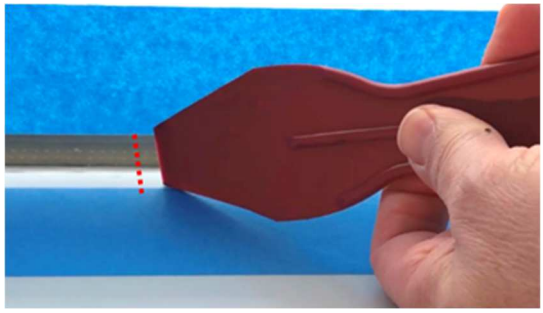
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5. Clean the surface where the IPA will be applied to remove any finger oils or debris. Apply rubbing alcohol to a lint-free towel and wipe the window frame and film. Immediately wipe dry with a clean lint-free towel.

6. Load the IPA tube into the caulk gun and pierce the tube about 4 times with a blade. Do not cut the end off the tube, as this will allow the IPA to run freely and potentially make a mess.

7. Apply a triangular bead of IPA sealant around the entire frame in the area between the tape. Apply ample IPA in the corners as it is easier to squeegee outward. On the straight areas, keeping the caulk gun held at a 90-degree angle to the IPA bead will provide a smoother bead. Avoid making any air bubbles or gaps.

8. Smooth the sealant bead with an appropriate tool to give a finished look. It is best to start in one side of a corner and pull outward 5-10 inches, clean off the spatula, then start in the same corner and wipe the other direction. The flat sides can be smoothed by starting near the corners and wiping the full length of the side. For best appearance and performance, wipe all sides with a clean spatula within the tack time before a skin forms (approx. 10 mins). The IPA surface should be flat, not concave.

9. Carefully remove the masking tape strips from the glass/frame immediately after tooling. Do not allow the excess sealant to contact the film, frame or flooring surfaces. A drop cloth should be used to protect the work area. Be careful not to step on sealant and transfer it to surrounding surfaces.


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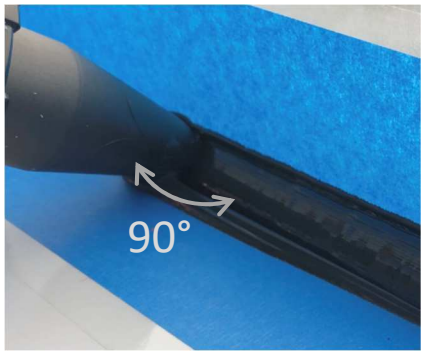

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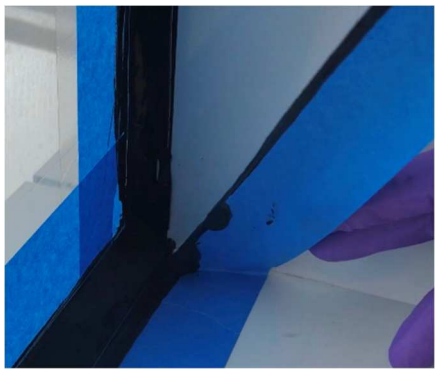
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Note: Should you get some of the sealant on the surrounding surfaces (frame, window, etc.), first try wiping up the bulk of the IPA with paper toweling. For smaller areas, you can use toweling with some rubbing alcohol.
Note: Curing time for the IPA Sealant will vary depending on temperature and relative humidity. It is not recommended to clean the film/IPA system for at least 36 hours following the installation. Full curing/ adhesion can take 21 days or more, depending on conditions.
Note: Read and follow all product labels, inserts and installation instructions before use. When using any equipment, always follow the manufacturers' instructions for safe operation.

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