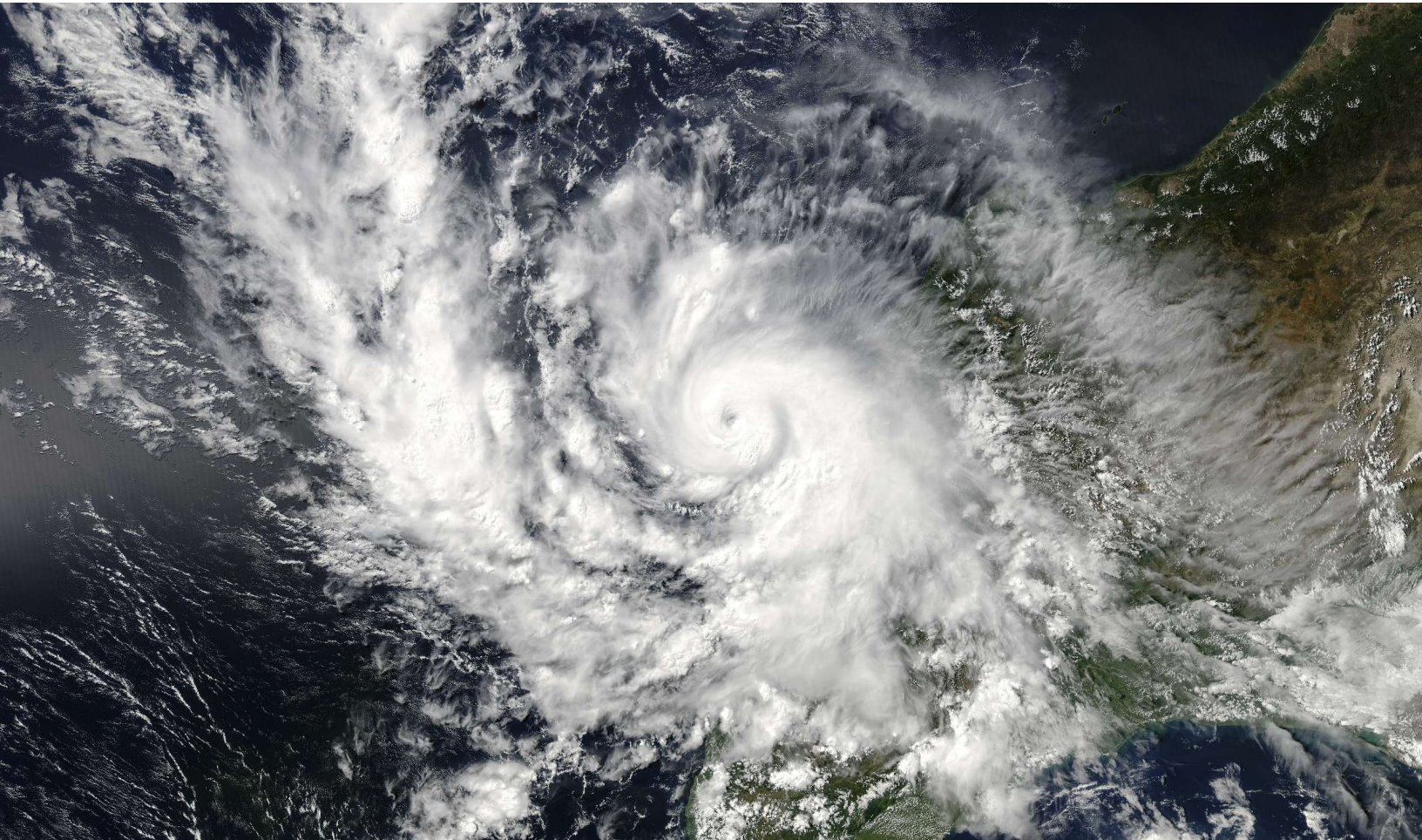




Technical Glass Products Product Installation Manual

FIREFRAMES® HURRICANE DOOR SYSTEM

The Fireframes® Hurricane Door System, incorporating precise roll-forming technology, provides a sleek, modern alternative to traditional hollow metal frames. Using narrow profiles, the Fireframes Hurricane Door System exceeds traditional fire-rated frame systems in aesthetics and performance. Available with fire ratings from 20 to 90 minutes, this modular system can incorporate fire rated doors with additional windstorm protection as a standalone solution or part of a surrounding compatible Fireframes Hurricane Curtainwall System, surpassing traditional systems.

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System Exploded View

ITEM	DESCRIPTION	ITEM	DESCRIPTION	ITEM	DESCRIPTION
1	DOOR FRAME PROFILE	7	DOOR GASKET, MEETING STILE	13	BEAD LOCK SCREWS, 8-32 x 1"
2	DOOR PROFILE, PIVOT STILE	8	DOOR GASKET, PERIMETER	14	EXIT DEVICE
3	DOOR PROFILE, MEETING STILE	9	SETTING BLOCKS	15	EXIT DEVICE, TOP LATCH AND HOUSING
4	DOOR PROFILE, VARIABLE MIDRAIL	10	GLAZING MATERIAL, FIRE-RATED	16	EXIT DEVICE, BOTTOM LATCH
5	DOOR PROFILE, BOTTOM RAIL	11	GLAZING BEAD	17	EXIT DEVICE, VERTICAL RODS
6	DOOR PIVOT ASSEMBLY	12	GLAZING BEAD STUDS	18	LEVER TRIM
				19	MOUNTING PLATES & SEX BOLTS

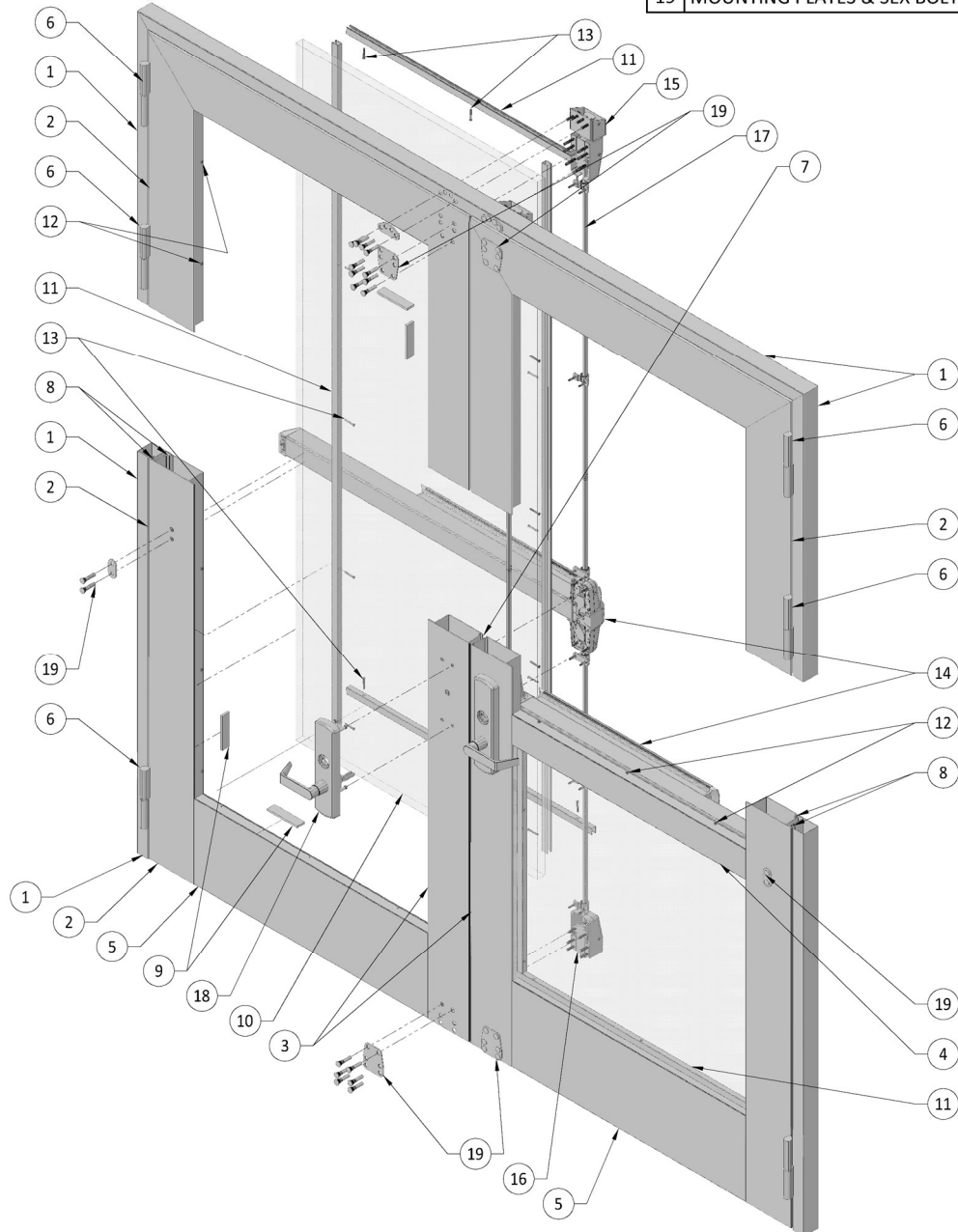


Figure 1 - System Exploded View

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Material Key Chart

Material	Required Material NOT PROVIDED With Fireframes Hurricane Door System
FINISH SEALANT	Sealant installed into the interior and exterior perimeter cavity. Select color for sealant to match frame or as directed by project architect.
CAP SEAL	REQUIRED on all exterior applications, use a continuous silicone sealant. Select color to match frame.
ANCHOR FASTENER	As wall constructions vary widely in design, TGP does not provide perimeter fasteners (anchors). All frames are factory drilled to receive #12 flat head perimeter screws at approximately 24" on center. Fasteners must be corrosion resistant per FBC Section 1711. See FBC Section 1711 for specific requirements based on building location.
FIRESAFING	Intumescent sealant or firmly packed mineral wool must be installed in a continuous fashion between frame assembly and wall construction, being interrupted only by the perimeter anchor shims. Sealant manufacturers such as Tremco, Pemko and many others supply intumescent sealants.
HEEL BEAD	REQUIRED in exterior applications: apply a continuous bead of silicone sealant at all horizontal to vertical intersections in the glazing pocket, and a heel bead along the sill and 4" vertically up each jamb. Sealant must be installed between the glass edge and frame profile.
GLAZING COMPOUND	DOWSIL™ 995 structural sealant is required at the perimeter flange to glass joint, and at the interior bead to glass joint. REQUIRED on 90-minute applications exceeding 1,393 sq. inches. Kerafix® 2000 glazing tape (white – calcium magnesium silicate) supplied by TGP must be used below the DOW 995 sealant noted above. Refer to Glazing Specifications for glazing tape sizes, and Glazing Installation Instructions.
SHIMS	Perimeter shims at anchor locations are to be of hardwood (oak) or non-combustible (steel) materials. Plastic shims may not be used. TGP recommends a 3/8" (9.5 mm) caulk joint between frame and all wall conditions.
WALL CONDITION	Rated wall construction by other trades.
Material	Fasteners Provided With Fireframes Hurricane Door System
BEAD LOCK SCREW	8-32 X 1" Flat Head Screws. The glazing beads and frames are factory fabricated to receive lock screws. The screws are supplied with screw heads painted to match frames. Bead lock screws are not used on non-rated applications.
BEAD STUD	Glazing beads snap onto factory installed, steel bead studs at approximately 12" on center.
Material	Components Provided With Fireframes Hurricane Door System
SETTING BLOCKS	6 mm calcium silicate, or hardwood, setting blocks shipped loose for field installation. Refer to Glazing Installation Instructions.
FIRE-RATED GLAZING MATERIAL	FireLite Plus® Hurricane glazing in either monolithic or IGU form to be used. Refer to the Fire-Rated Glazing Options and Specifications, and Glazing Installation Instructions.
FIRE-RATED GLAZING TAPE	Fire-rated glazing tape for 90-minute Fireframes Hurricane Door System assemblies only. Refer to Glazing Specifications section for glazing tape sizes, and Glazing Installation Instructions.
GLAZING BEAD	Snap-on glazing bead to hold glass in system.
WEATHER SEAL	Silicone gasket used at door meeting stiles.
DOOR GASKET	Silicone door stop gasket used on door leaf and door frame.

Figure 2 - Material Key Chart

General Information

This document is meant as a general description of typical installations. As such, it is the responsibility of the installer to ensure frame materials are installed per the conditions that exist on any given project in accordance with these instructions and project drawings. TGP project drawings may detail modifications to the surrounding conditions required for a given project, (if architectural details or sketches were provided to TGP) and should be used in conjunction with these instructions. In the event of any conflict between these instructions and TGP project drawings, the TGP project drawings shall govern. TGP does not accept any warranty and / or liability for installations not in compliance with this document or other non-conforming use of the TGP products and / or system. Contact TGP with questions concerning these details as they apply to the particulars of a given project.

SIZING GUIDELINES

Refer to the Fireframes Hurricane Door System Architectural Specification Manual for sizing guidelines and limitations.

AMERICANS WITH DISABILITY ACT STANDARDS ON FIRE PROTECTION DOORS

If fire doors were required to meet A.D.A. (Americans with Disability Act) Standards, many would not open or close with adequate force to prevent passage of flames and smoke. Recognizing this special fire safety need, NFPA 101 (National Fire Protection Association) allows operational features for fire doors (opening forces, closing speeds, etc.) that are different than for non-fire-rated doors. These fire “protective” steel doors carry ratings from 20-90 minutes for fire protection. Heat transfer through the door is not an issue, so they are constructed without interior insulation.

CONVENTIONAL WOOD OR HOLLOW METAL DOORS IN FIREFRAMES HURRICANE DOOR SYSTEM FRAMES

Conventional fire-rated wood or hollow metal doors are not allowed to be installed into TGP’s narrow profiled Fireframes Hurricane Door System frame.

FIRE-RATED GLAZING OPTIONS

Technical Glass Products provides a complete line of fire-rated glazing options to complement the Fireframes products. Refer to your Technical Glass Products SpecIFIRE® Selection Guide, available from your sales representative or online at www.fireglass.com.

Refer to the *Fireframes Hurricane Door System Architectural Specification Manual* for specific limitations based on specific combinations of product type and application.

Please consult your Technical Glass Products sales representative to determine the best option for your application.

General Information

GLAZING SPECIFICATIONS

Only the glazing combinations below are allowed in the Fireframes Hurricane Door System. IGUs may be made of tempered glass, uncoated or with high performance low-emissivity coatings. Laminated outboard lites are not allowed.

DOWSIL 995 structural silicone sealant is used as the primary glazing compound on both the protected (interior/bead side) and unprotected (exterior/flange side) of the glazing. For 20-60 minute fire-rated installations, closed cell 1/2" wide single sided adhesive PVC glazing tape of any common brand (available from your local glazing supply house) is recommended for use as small shims to maintain the appropriate gap between frame and glass.

For 90-minute applications exceeding 1,393 sq. inches. Kerafix® 2000 glazing tape (white – calcium magnesium silicate) supplied by TGP must be used below the DOWSIL 995 sealant noted above. See "Glazing Tape" on the Material Key Chart. Refer to table below for glazing tape thickness required for specific glazing products.

Glazing Product	Weight (Approx.) Pounds per Sq. Ft.	Glazing Thickness		Glazing Tape Thickness Used		Glazing Tape Thickness Used (Wide Stile)	
FireLite Plus Standard	4.0	13/32"	10 mm	5/32"	4 mm	5/32"	4 mm
FireLite Plus Premium	4.0	13/32"	10 mm	5/32"	4 mm	5/32"	4 mm
FireLite Plus IGU Standard	7.5	1"	25 mm	3/16"	5 mm	3/16"	5 mm
FireLite Plus IGU Premium	7.5	1"	25 mm	3/16"	5 mm	3/16"	5 mm

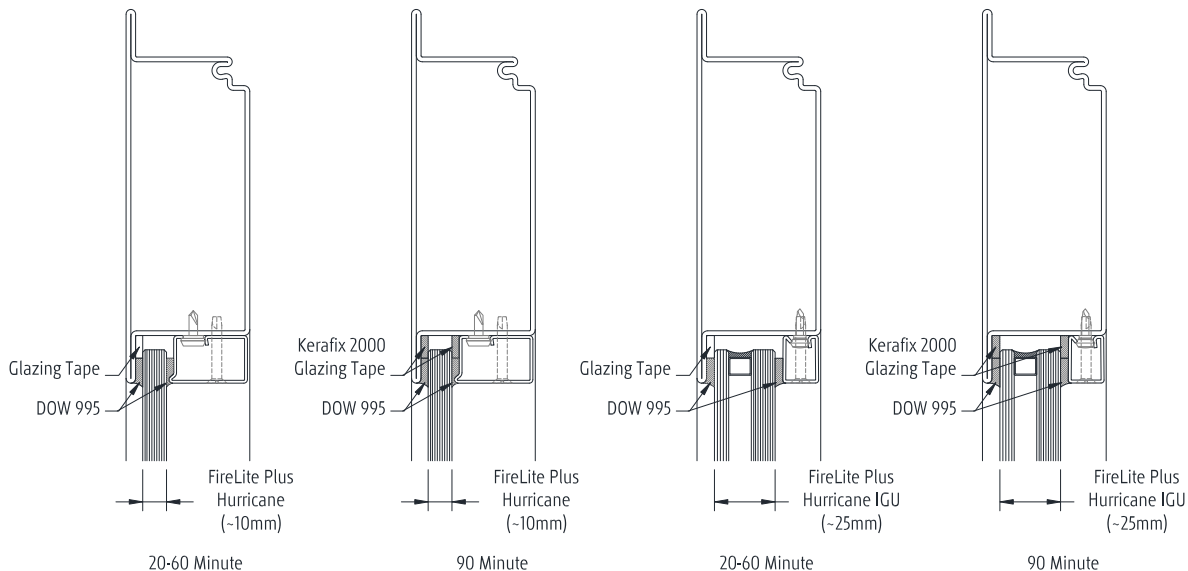


Figure 3 - Typical Glazing Options

General Information

HOW TO DETERMINE DOOR HANDING

Doors are always viewed and identified by the secure (lockable) side of the door. The non-lockable side is not secured and always available for emergency egress (panic exit).

NOTE: * Active/Active pairs of doors require exit devices be installed on both leaves.

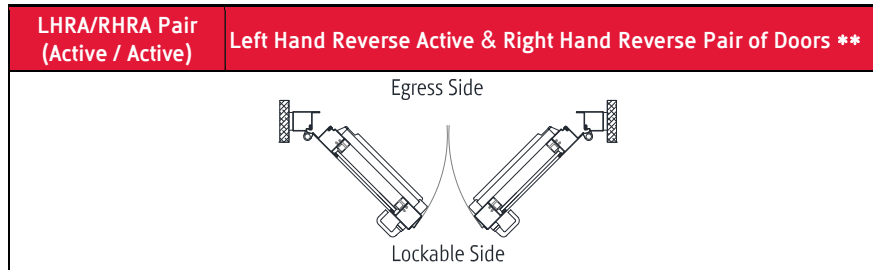


Figure 4 - Door Handing Chart

General Information

DOOR HARDWARE CONFIGURATIONS AND HARDWARE OPTIONS

The Fireframes Hurricane Door System has been developed with narrow steel profiles which exceed traditional fire-rated frame systems in aesthetics and performance. The additional windstorm rating further limits the use of hardware specifically to those listed herein and on TGP's Florida Building Code product approval listing. TGP offers a complete line of select hardware options which have been fit- and function-tested for use with these profiles.

Not all fire-rated hardware components available are compatible with TGP's narrow profile systems and not all hardware is windstorm appropriate. Should you request an item of hardware not standardly supplied by TGP, please forward all relevant information (manufacturer, model number, fabrication template and if required physical sample) to TGP for evaluation by our engineering staff, to determine if it can be supplied by TGP for use. Use of non-standard hardware will incur additional cost and lead time.

For detailed hardware information refer to individual cut sheets available from Technical Glass Products.

Required: ● Required Option: ◎ Optional: ○ Not Available: Blank

Door Swing Type	LHRA/ RHRA (PAIR)	Manufacturer - Notes
Door Bottom Smoke Seal	●	Pemko – Automatically seals to floor when door is closed.
Perimeter Gaskets	●	TGP – Double overlapping seal system provides effective seal against weather and smoke.
Weld-On Pivot	●	TGP – Three pivots standard.
Closer	◎	LCN – 4040XP Surface Mounted, Push Side standard.
Exit Device and Latching	●	Von Duprin – Surface Vertical Rods (Bottom Rod Required).
Cylinder	○	Schlage C Keyway (standard).
Concealed Power Transfer	○	EPT-10 – For use with electric options.
Power Supply	○	Von Duprin – Power for electric exit devices.

Figure 5 - Hardware Configuration Chart

Recommended Guidelines

1. REVIEW CONTRACT DOCUMENTS

Review architectural drawings, specifications, and approved TGP project drawings, installation instructions, and shipping lists to become thoroughly familiar with the project. The TGP project drawings take precedence and include specific details for your installation. These installation instructions are of a general nature and cover most conditions.

2. BUILDING CODES

Due to the diversity in local, state / provincial, or federal laws and the codes that govern design and application of architectural products, it is the responsibility of the individual architect / owner and installer to ensure that products selected for use on projects comply with all the applicable building codes and laws. Technical Glass Products exercises no control over the use or application of its products, glazing materials, and operating hardware and assumes no responsibility thereof. Compliance of TGP project drawings with applicable codes for a given project shall be the responsibility of the Buyer.

3. COORDINATION WITH OTHER TRADES

Coordinate with the general contractor any sequence with other trades which impact installation (i.e. fire proofing, back-up walls, partitions, ceilings, mechanical ducts, converters etc.) or in which installation may impact the work of adjacent trades.

4. INSTALLATION

All materials are to be installed plumb and level.

5. BENCHMARKS

All work should start from benchmarks and/or column lines as established by the architectural drawings and the general contractor with guaranteed accuracy. Using these datum points and lines, determine:

- a. The plane of the wall in reference to offset lines provided on each floor;
- b. The finish floor lines in reference to benchmarks on the outer building columns; and
- c. Mullion spacing from both ends of openings to prevent dimensional build-up of daylight opening.

6. SURROUNDING CONDITIONS

- a. Coordination of adjacent material and construction tolerances to TGP's systems may be facilitated by TGP as part of preparing project drawings, and these drawings may indicate acceptable tolerances for critical dimensions. The installer should verify that surrounding construction is in accordance with the approved project drawings. Do not accept rough opening dimensions less than shown on project drawings. It is assumed that the minimal joint dimensions shown on the TGP project drawings match the field conditions. A frame may fit within a given opening, but sealants may not perform as detailed if a smaller sealant joint is installed. Expansion / contraction issues may also be compromised. IF THE JOINTS ARE SMALLER THAN THAT SHOWN ON THE TGP PROJECT DRAWINGS, DO NOT PROCEED. Notify the General Contractor that the conditions are not as detailed and wait for corrective work to be completed before starting this work.

Recommended Guidelines

- b. The installer **MUST** notify and receive approval from TGP and the general contractor when conditions are not in accordance with approved project drawings and/or change any aspect of the structural performance of the Fireframes series before making any modifications to the TGP-furnished material or making changes which are different from those shown on the TGP project drawings. These conditions include, but are not limited to, anchor placement/location, changes in adjacent materials the anchor is being connected to or changes to dimensional relationships between framing, anchors and connection to adjacent materials.
- c. TGP must review and approve any changes required prior to the subcontractor installing any “corrective” work. These reviews may incur additional charges, which must be approved by the TGP customer prior to TGP’s review.

7. FRAME CONSTRUCTION VARIES

Depending on size restrictions, frames are shipped fully welded ready for installation or “K-D” (knock-down) to be assembled on site with mechanical joints.

8. FASTENING

Within the body of these instructions, “fastening” means any method of securing one part to another or to adjacent materials by means other than welding, adhering or using a mechanical fastener as shown on the approved details. Only those fasteners used within the system are specified in these instructions. **Due to the varying perimeter conditions and performance requirements, perimeter and anchor fasteners are not specified in these instructions and are the responsibility of the installer.**

9. SEALANTS

- a. Sealants must be compatible with all materials they are in contact with, including other sealant surfaces. Consult with sealant manufacturer for recommendations relative to joint size, shelf life, compatibility, cleaning/priming, tooling, adhesion, etc.
- b. The chemical compatibility and/or adhesion of all glazing materials and framing sealants with each other and with like materials used in glass and frame fabrication must be established by the installer. This is required on every project.
- c. If required by the project specifications, it is the responsibility of the glazing contractor to submit any documentation or samples from the sealant manufacturer indicating that glass and glazing material has been tested for chemical compatibility and / or adhesion with glazing sealants. **This applies to all TGP materials in contact with any sealant.** TGP will furnish samples of these materials upon request.
- d. The implementation of the test results is the responsibility of the installing contractor, and includes material performance and recommendations for primers and substrate preparation required to obtain adhesion.

10. PERIMETER JOINTS

Perimeter seals and/or expansion joints shown in these instructions and in the TGP project drawings are shown at nominal size. Actual dimensions may vary due to perimeter conditions and / or difference in metal temperature between the time of fabrication and the time of installation. Design and detailing have been based on a fabrication / installation temperature of 70° F (21° C). If extreme temperatures exist at time of installation, gaps between expansion members may require slight adjustment.

Assembly and Installation

1 RECEIVING AND INSPECTION

- 1.1 **CRITICAL:** Refer to **PRODUCT RECEIVING AND HANDLING** instructions provided separately for guidance on proper receiving and handling procedures.

2 PREPARE PERIMETER CONDITION

CRITICAL: Allow for joint sizes at perimeter conditions per the approved Fireframes project drawings.

- 2.1 Coordinate work with adjacent trades through the general contractor. Ensure all required materials are on-site and surrounding conditions are completed when the installation is scheduled to start.
- 2.2 Work with a general contractor to determine which layout control lines will be used for installation. Layout of wall and mullion placement is assumed to have already taken place in relation to:
- Building control lines
 - Building grid or column lines
 - Within rough openings and
 - Other conditions, as required by the specific project
- 2.3 Remove loose debris.
- 2.4 Ensure adjacent trades are ready to receive framing and eventually receive perimeter sealant or other waterproofing as detailed on the approved Fireframes project drawings.

3 PREPARE FRAME ASSEMBLY FOR INSTALLATION

NOTE: If the frame was received with glazing beads attached, remove glazing beads from frame. If the frame was supplied with the beads loose, locate them, and the bead lock screws.

- 3.1 Remove Glazing Beads.
- Remove the bead lock screws, when present, from the glazing beads (Figure 6). Bead lock screws are not used on non-rated applications.
 - Rotate glazing beads off the bead stud (Figure 6).

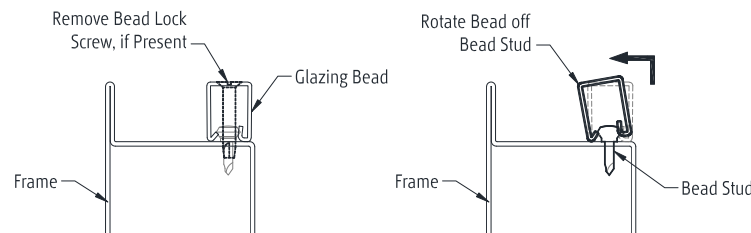


Figure 6 - Remove Glazing Beads

- Organize the removed beads according to each opening. Each glazing bead is custom fit to its particular location, be sure to note the marked location on each glazing bead for proper reinstallation.
- Each glazing bead is marked with a location number that corresponds with a number on the frame:
 - The bead locator mark is on the inside of the glazing bead at one end (Figure 7).
 - The locator mark on the frame is under the glazing bead (Figure 7).

Assembly and Installation

- (3) The beads are marked clockwise in an ascending numerical order around each opening as in the example below (Figure 8).

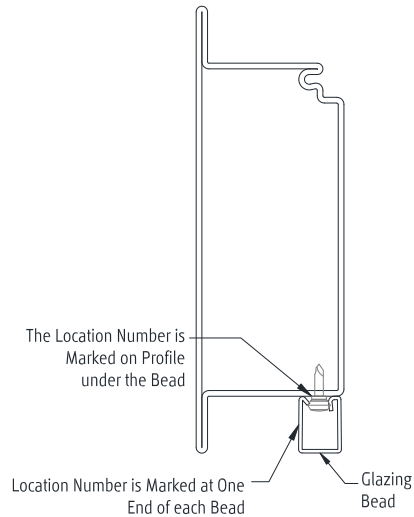


Figure 7 - Bead Locator Mark Location

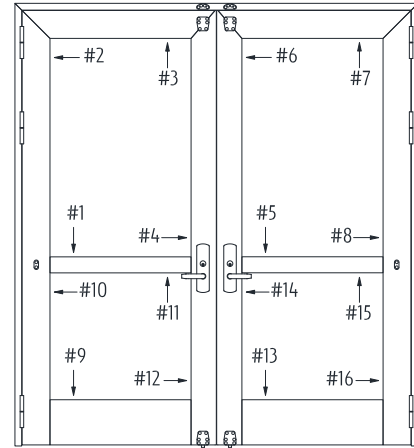


Figure 8 - Example of Glazing Bead Locations and Numbering Sequence

3.2 THIS SECTION INTENTIONALLY LEFT BLANK.

- 3.3 If necessary to ease installation, remove the door leaf from frame.
- Disconnect the closer arm from the top of the door leaf (Figure 9).
 - If provided with a power transfer between the leaf and the jamb, disconnect (Figure 10).

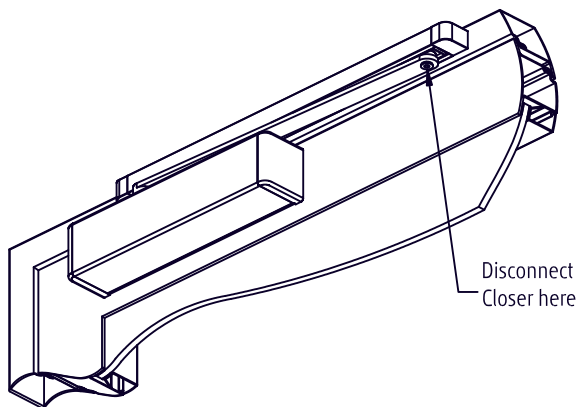


Figure 9 - Disconnect Closer (Surface Mounted Shown)

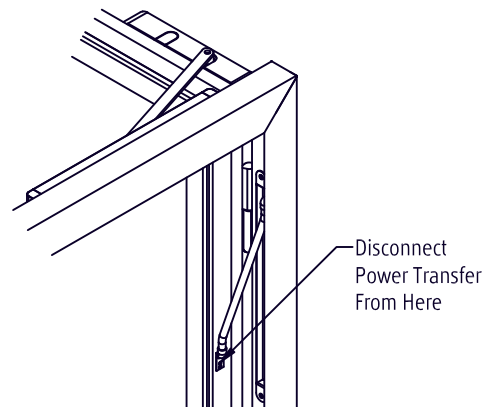


Figure 10 - Disconnect Electric Power Transfer (EPTL)

Assembly and Installation

- c. For more information on disconnecting these items, refer to the hardware cutsheets and/or manufacturers' instructions shipped with your order.

4 FRAME ASSEMBLY INSTALLATION

NOTE: Details shown in this manual are to be used as a guide only. Refer to the approved Fireframes project drawings provided. Protect frames during installation to avoid scratching the powder coating.

- 4.1 All exterior frames **must be installed** with the frame flange facing the exterior (weather exposure side) of the opening. Refer to Sample Section Details - Windows within the Architectural Specification Manual, and/or approved Fireframes project drawings provided.
- 4.2 Use flame resistant shims (hardwood, oak, or metal) sized for the perimeter joint at anchor locations as required to ensure that frame is square and level. Plastic shims may not be used.
- 4.3 Perimeter anchor fastener installation (Figure 11):

NOTE: As wall construction varies widely in design, perimeter fasteners (anchors) are not provided by TGP.

- a. For exterior applications:
- (1) Locate and set sill flashing (not provided by TGP) into bed of sealant.
 - (2) Locate shims adjacent to the sill anchor holes.
 - (3) Apply sealant bed approximately 1" diameter on sill at each anchor hole location.
 - (4) Set frame into opening onto shims.
 - (5) Install #12 flat head perimeter fasteners through pre-drilled holes in sill through sealant bed.
 - (6) Continue installing fasteners at head and jambs until frame is secure.

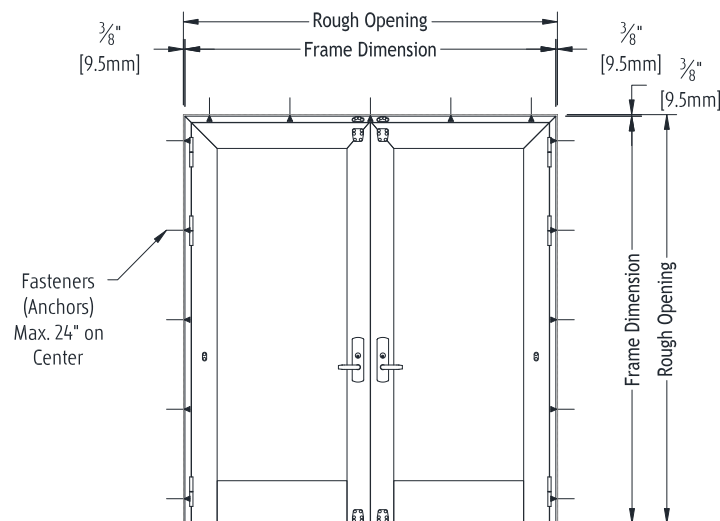


Figure 11 - Typical Frame Elevations

Assembly and Installation

- 4.4 For exterior doors the glazing pockets of each opening **must be sealed** (Figure 12).
- Apply a bead of sealant at **all** horizontal and vertical intersections in the glazing pocket.
 - Apply a sealant heel bead continuously at sill and 4" vertically up each jamb.

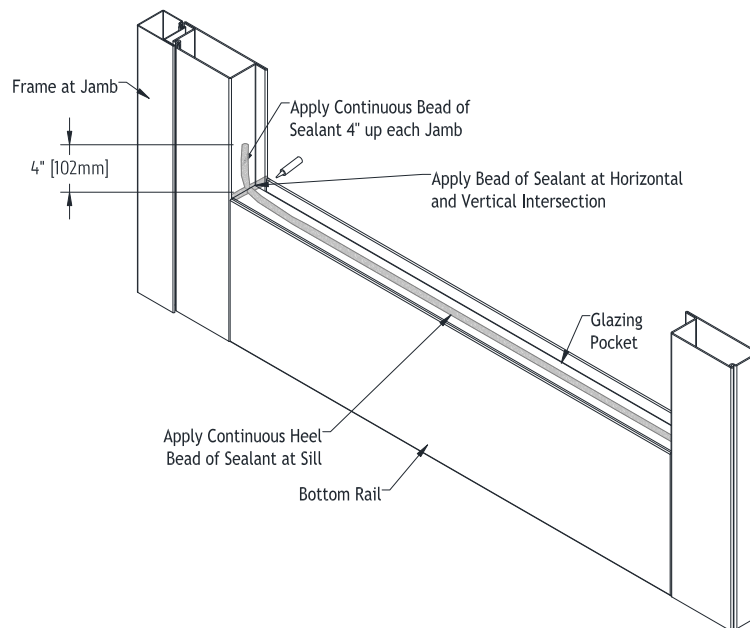


Figure 12 - Seal Intersections and Glazing Pocket

5 REINSTALL DOOR LEAVES INTO FRAMES

- 5.1 Reinstall doors that were removed prior to frame installation.
- Reconnect the closer arm at the top of the door leaf (Figure 9).
 - If your door has an electric power transfer (EPTL), reconnect it (Figure 10).
 - Verify the doors are installed in a level and plumb condition. If not, doors may not close properly and hardware may not function correctly.
- 5.2 Installation of door stop(s).
- To avoid damage to door and surrounding walls, door stops (by others) are recommended.
 - Locate door stop no more than 3" (76 mm) from edge of door leaf (Figure 13).
 - Installing the door stop too close to pivot will cause frame damage (Figure 14).

Assembly and Installation

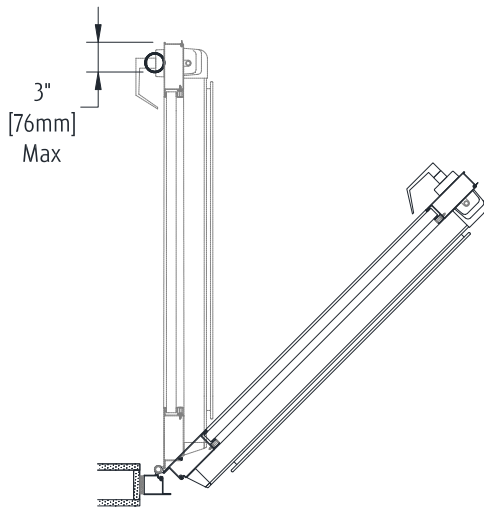


Figure 13 - PROPER Door Stop Placement

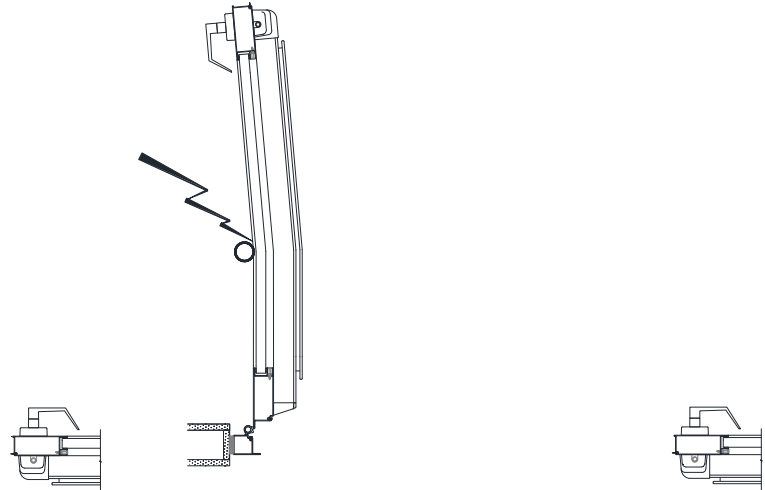


Figure 14 - IMPROPER Door Stop Placement

6 GLAZING INSTALLATION

NOTE: Glazing pockets, glazing beads, and glass surfaces should be thoroughly cleaned and dry, free of debris, oils, or other contaminants which may prevent adhesion of the adhesive bonding of the glazing compounds.

If installing glass in doors without mid-rails, it will be necessary to remove the panic device hardware from the door to allow glass installation. CAREFULLY review the OEM instructions provided with your order to ensure removal and replacement is done correctly.

- 6.1 Before glass installation, inspect each piece of glass for edge damage or surface imperfections, damaged glass should not be used without TGP's approval. Report any damage immediately to TGP.
- 6.2 For proper support of the glass, use the supplied setting blocks at quarter points of daylight opening. Doors will use four (4) setting blocks (Figure 15).

Assembly and Installation

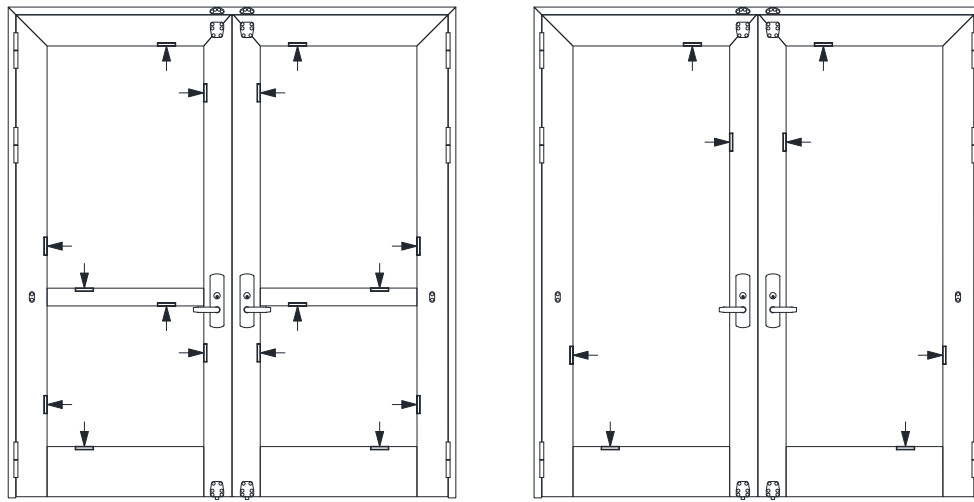


Figure 15 - Door Setting Block Placement

6.3 Glazing Tape Installation.

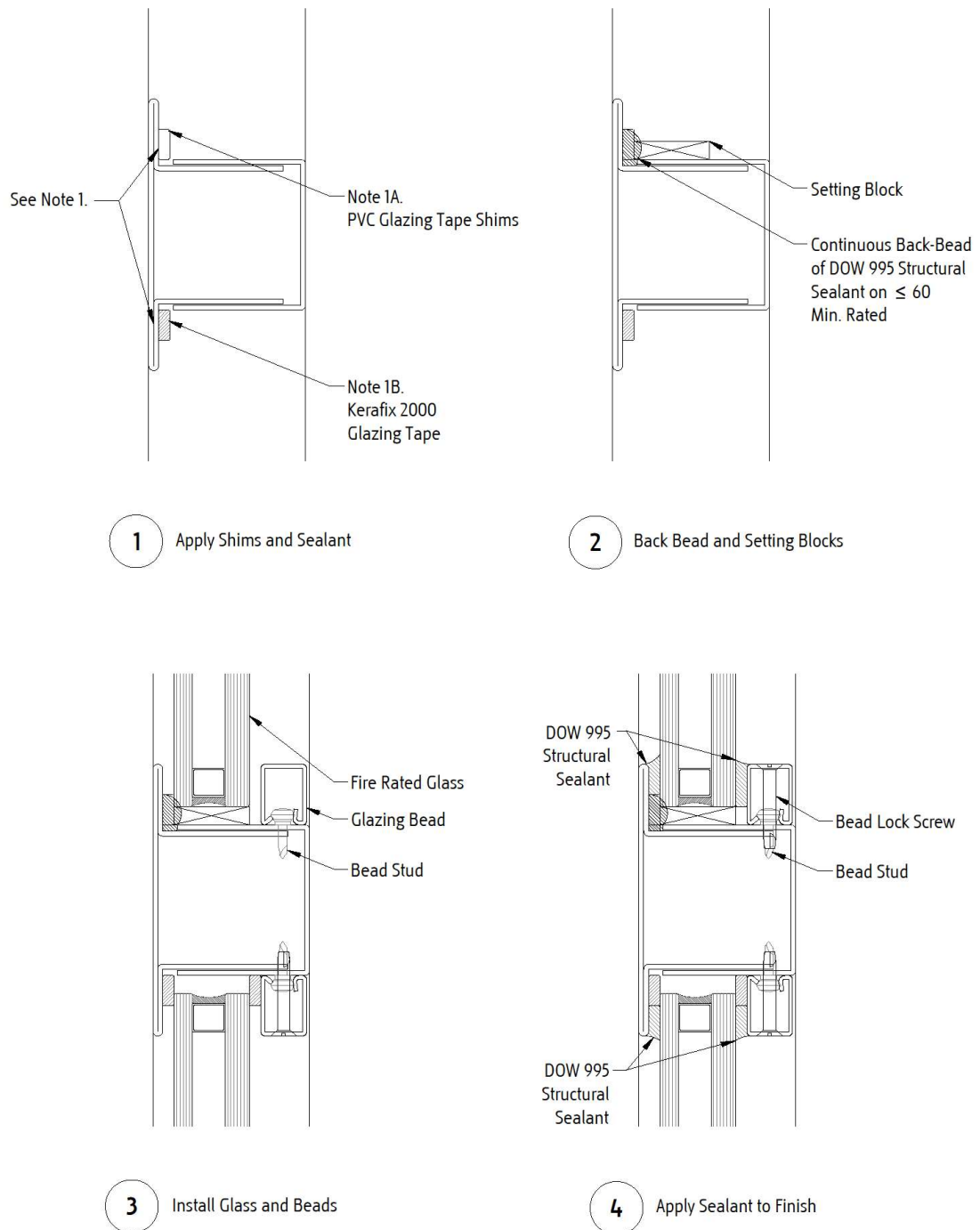
For 20-60 Minute Fire-Rated Applications:

- Apply small square pieces of PVC glazing tape near the quarter points of each side of the flange, near the bottom of the glass pocket, to act as a shim when setting the glass. (Figure 16)
- Apply small square pieces to interior of the glazing beads aligned to the bottom of the glazing bead as it faces the glass. (Figure 16).

For 90 Minute Fire-Rated Applications (exceeding 1,393 sq. in.)

- Apply continuously the supplied white ceramic glazing tape around the flange side of the opening, aligning to the bottom of the glazing pocket. (Figure 16).
- Apply continuously the supplied white ceramic glazing tape to each glazing bead aligned to the bottom of the glazing bead as it faces the glass.

NOTE: These glazing tapes will act as shims keeping the glass centered as you install the required structural silicone sealant.



Note 1: Ensure Glass is Centered in Opening

- A. For ≤ 60 Min. Rated: Use Closed Cell PVC Glazing Tape (Nominal 4mm THK x 6mm) As Shim at 1/4 Points Per Side
- B. For 90 Min. Rated: Requires Use of Kerafix 2000 Glazing Tape By. TGP Continuously Applied on Flange and Bead Side. (Omit Sealant Back-Bead.)

Figure 16 - Installing Glazing Tape and Back-Bead Sealant

Assembly and Installation

- 6.4 Installing Silicone Sealant on Flange.
- Apply a continuous bead at the bottom corner of the glazing pocket along the flange side. This will act as a back stop for the finished sealant installed after installing glass.
- 6.5 Installing Glass into Frames (Figure 17).
- The glass bite is nominally 9/16" (14 mm) per side.
 - Carefully place glass into the opening onto the supplied setting blocks without tilting or sliding. Depending on fabrication tolerances, temporary removal of bead studs along one side may be required.
 - Check for equal clearance around the glass edges, and adjust setting blocks as needed.

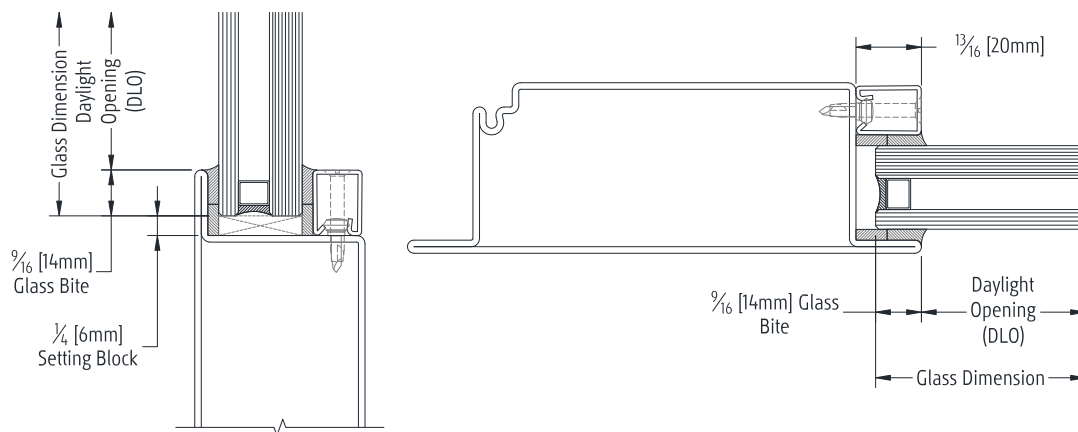


Figure 17 - Glass Bite and Glass Dimensions

Assembly and Installation

- 6.6 Install Glazing Beads.
- Place glazing beads in correct position by finding the locator number on the glazing bead and the corresponding number on the frame.
 - Center the glazing beads within the opening, equalizing any gap rather than having the bead tight at one end.**
 - Install glazing beads onto bead studs by tilting the bead toward glass, then rotate away from glass and snap onto steel bead stud. If needed, tap into place using a non-marring tool.
- 6.7 Install bead lock screws into glazing bead (Figure 18).
- 6.8 Install Structural Silicone.
- Carefully apply the required DOWSIL 995 structural sealant continuously between glass and flange on exterior side.
 - Carefully apply the required DOWSIL 995 structural sealant continuously between glass and bead on interior side.
 - Ensure the glass remains centered in the opening.
- NOTE:** it is NOT required or recommended to fully flood the glazing pocket with sealant.
- 6.9 Install Firesafing and Finish Seals to perimeter joint gaps (Figure 19).
- 6.10 Install fire-rated insulation (mineral wool or fire rated caulk) around the entire frame perimeter to ensure proper fire integrity of the system is maintained.
- Install continuously through both sides of the frame cavity filling between the frame and surrounding materials.
 - For perimeter joints 3/8" (9.5 mm) or smaller, install fire-rated 3M CP25WB+ intumescent caulk.
 - For perimeter joints larger than 3/8" (9.5 mm), install fire-rated mineral wool insulation.
 - Apply silicone finish sealant of installer's choice.
- 6.11 Clean the glass after installation. See Cleaning and Maintenance Procedure provided separately.
- 6.12 Reinstall and recheck function of panic exit device(s) if removed for glazing.

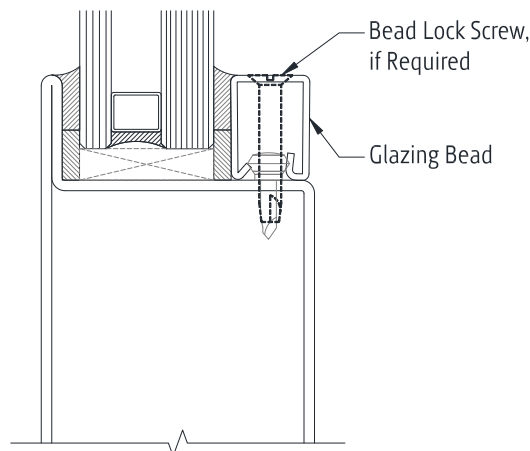


Figure 18 - Install Bead Lock Screws

Assembly and Installation

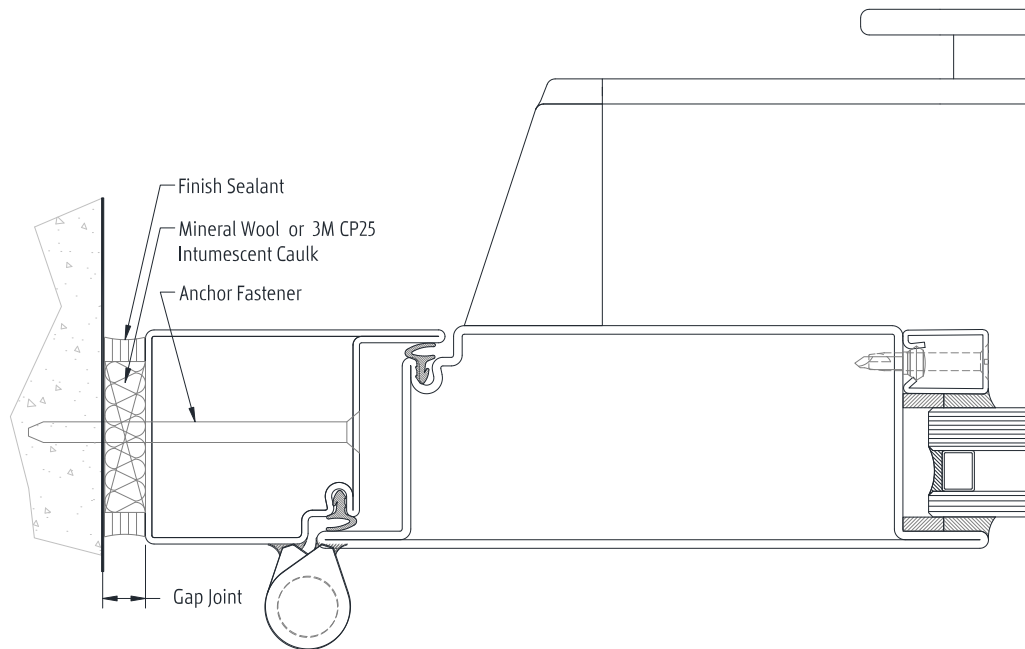


Figure 19 - Install Firesafing and Seals

7 DOOR FUNCTION CHECK

7.1 Smoke Seal

- The door is shipped with the smoke seal installed in the fully retracted position.
- Adjust the drop bar by turning adjustment screw (on pivot stile side) counter clockwise until the smoke seal touches the finished surface under the door when closed.

7.2 Lock Latch

- Check for smooth operation of the latch.
- If necessary, apply white lithium grease (not provided by TGP).

7.3 Panic Egress

- Test that the panic egress is functioning properly for emergency exiting.
- The panic side of the fire-rated door must be able to open even when the door is locked.

7.4 Door Closing and Latching

NOTE: Fire-rated doors must close and latch under their own power at all times.

- Check to ensure that the door(s) automatically closes and latches. The door closer must be adjusted so that the door closes automatically from any angle of opening.
- Adjust the closer to the least amount of resistance possible, while maintaining proper operation.
- For detailed instructions consult the closer manufacturer's operating instructions shipped with door. Refer to NFPA 80-13, Standard for Fire Doors & Windows (Chapters 7 and 17).

Door Maintenance

Refer to the individual Fireframes hardware cutsheets and/or the original equipment manufacturer (OEM) data which may have been supplied, for additional maintenance information. It is the responsibility of the owner to ensure that scheduled maintenance is carried out after installation, one per year, or after a maximum 50,000 openings.

NOTE: The maintenance must be carried out by a building maintenance professional. The checks and remedial measures must be recorded in building maintenance log in order to maintain warranty.

Contact Technical Glass Products about any defects or before modifying product from original equipment manufacturer (OEM) standards. Modifying product may void fire-rating or affect warranty coverage. Defects or defective parts should only be replaced by an authorized specialist company.

Ensure that all hardware is properly cleaned, lubricated, adjusted, and secured in position.

Door Gasket Seals

- Gasket seals must be checked for sealing pressure and flexibility.
- Brittle, damaged or improperly functioning seals must be replaced along their entire length.
- When neoprene door gaskets are used, an intumescent tape/strip is factory-applied across top of door leaf(s) on door pairs where exposed glass height is over 88-3/4" (2,254mm). This tape MUST NOT be removed.

Smoke Seal

- Smoke seals must be checked for their activation function.

- Seal must touch the finished surface under the door, in the closed position, and cover the full width of the door.

Pivots (Hinges)

- Lubricate pivots moderately with silicone spray lubricant (not provided by TGP) every 90 days.
- High traffic applications or doors with motorized automatic openers require monthly lubrication and maintenance. Damage to the door and its components that is caused by lack of maintenance, will not be covered under the TGP warranty.
- Inspect for any signs of wear or damage. Worn hinges must be fixed immediately to prevent failure. Contact Technical Glass Products, if problems exist.

Locks and Handles

- Check that the lock latch engages.
- Lubricate latch moderately on both sides with silicone spray lubricant (not provided by TGP).

Door Closers

- Fire-rated doors must always close and latch under their own power.
- The door closers must be adjusted so that the doors close automatically and latch from any angle of opening. Ensure compliance with closer OEM adjustment instructions. Refer to NFPA 80-13 Standard for Fire Doors & Windows.
- Adjustment settings: check and adjust closing speed, latch speed and backcheck settings as needed.

In accordance with California Prop 65, products received from TGP may contain the required warning label (below) indicating that they may contain door hardware or other components known to cause cancer and reproductive harm. For more information, go to www.P65Warnings.ca.gov.

In accordance with California PROP65 -

⚠ WARNING: Cancer and Reproductive Harm-www.P65Warnings.ca.gov

⚠ ADVERTENCIA: Cáncer y Daño Reproductivo-www.P65Warnings.ca.gov

⚠ AVERTISSEMENT: Cancer et Troubles de l'appareil reproducteur-
www.P65Warnings.ca.gov

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