

# Field 1/2" Reinforced Mullion Assembly of Aluminum-Clad Wood Windows without Fins and With Subsill Assembled-in-Opening

**IMPORTANT** Determining and meeting the structural load requirements and design of the rough opening is the responsibility of the architect, engineer, and/or contractor. Windows, doors, and/or mullions are not designed to support additional elements or components of the building wall system. Refer to published technical recommendations for window and door combinations or your local distributor for more information. For applicable warranty and arbitration information, please refer to the product website. Field combinations not in accordance with the following parameters and/or the technical recommendations will void warranty.

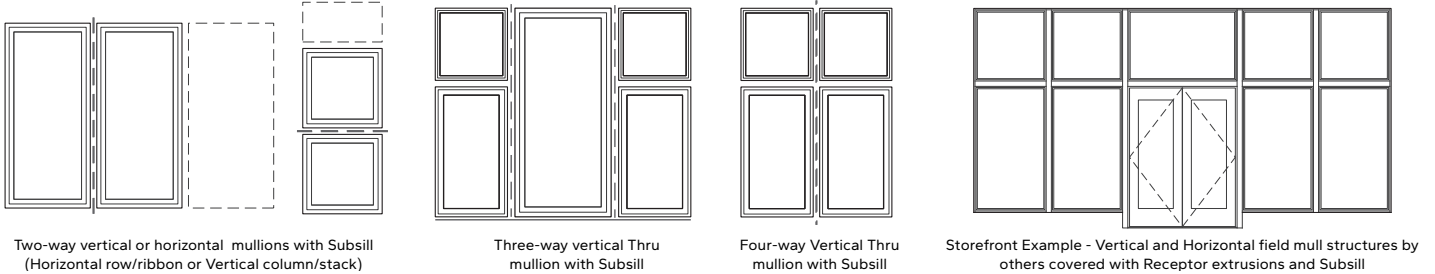
**Note regarding Subsill Systems:** 1" subsills allow incidental moisture to drain or weep to the exterior and are recommended for water management in openings where the potential for water infiltration is increased. Example project conditions include multi-story construction, high weather exposure, difficult or higher risk re-caulking procedures, or multiple units joined within larger openings.

**Note regarding L-Receptor with Subsill Systems:** L-Receptor allows for the majority of the work and potential future maintenance to be completed from the interior of the structure. Recommended applications would be commercial applications or high-rise, multi-story structures, or storefront systems utilizing 2" T-Receptors as expansion mullions, or horizontal and vertical Receptor Mullion over Structure extrusions 50E3 and 50E5. See your local distributor for more information and refer to separate instructions and/or published technical documents for additional information.

## Parameters:

- 1/2" reinforced mull span limitation for two-way mulls is 12 feet
- 1/2" reinforced mull not recommended for use at vertical mullions adjacent venting doors
- Openings exceeding 10 ft are recommended to utilize 1/2" perimeter rough opening installation clearances
- Openings exceeding 20 ft are recommended to incorporate the 2" Structural Receptor Mullion

## Example Combinations:



**WARNING** Window combinations can be extremely heavy. Installation will require (2) or more persons for safety reasons. Remember to use personal protective equipment. Read the entire instruction before proceeding.

## You will need to supply:

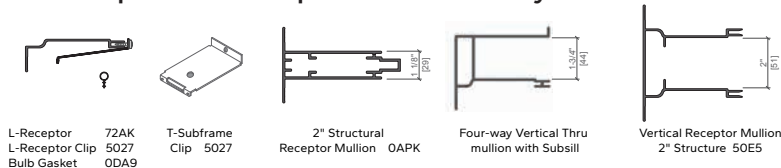
- High quality exterior grade polyurethane sealant
- Foil backed butyl window and door flashing tape
- Backer Rod
- Impervious shims / spacers
- 1/2" wood interior mullion cover 260A
- #10x3" flat head screws (mull end anchors)
- #8x2" finish head screws (window sill to subsill)



## Legend / Parts to Supply Catalog Part # Reference

A. 1" wood subsill	4049
B. Subsill support clips	7366
C. Installation Clips or #8x3" through frame finish head screws	5071
D. 1/2" reinforcement	0A6G or 0A6K
E. Upper mullion end anchor	512C
F. Subsill mullion end anchor	512B
G. 1/2" Mullion Cover	736M
H. 1" frame expander	47D4

## Alternate parts for L-Receptor and Storefront Systems with Subsill



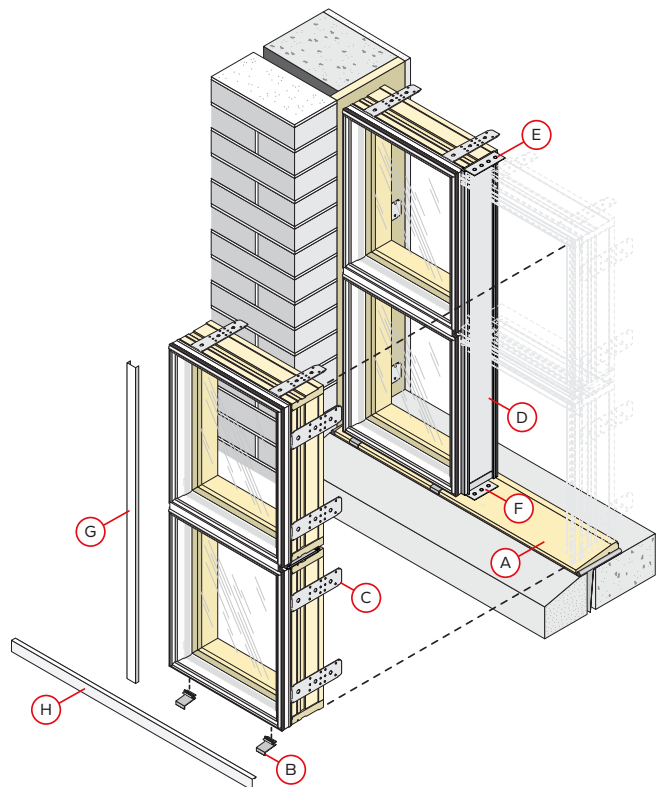
L-Receptor 72AK  
L-Receptor Clip 5027  
Bulb Gasket ODA9

T-Subframe  
Clip 5027

2" Structural  
Receptor Mullion OAPK

Four-way Vertical Thru  
mullion with Subsill

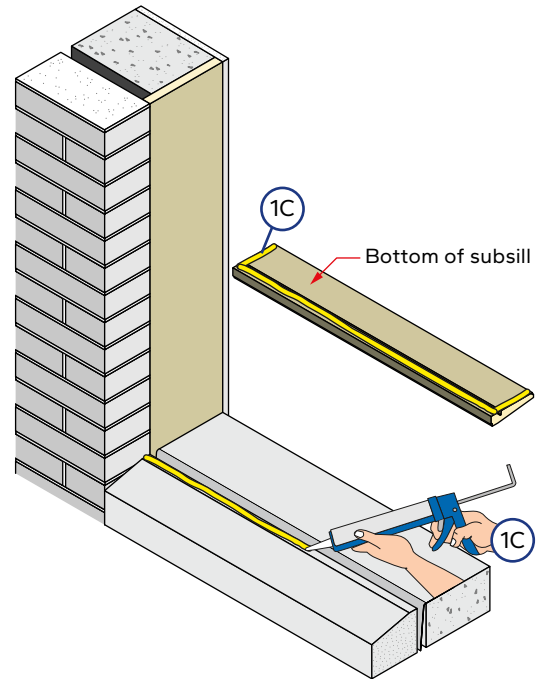
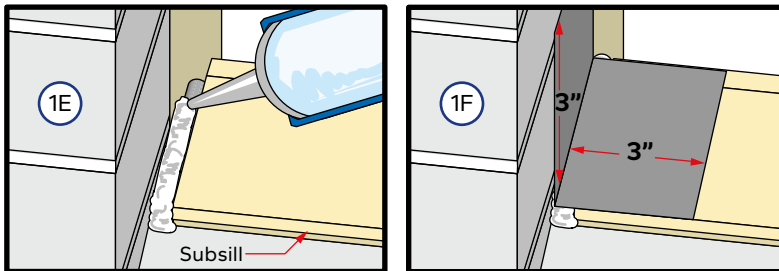
Vertical Receptor Mullion  
2" Structure 50E5



**Note:** Subsill is required when no other through wall flashing is present at the bottom of the rough opening. If subsill is not required, proceed to Step 2.

# 1 Installing Subsill:

- A. **Check the opening to ensure the product will fit.** Combination width plus 3/4", frame height plus 1-1/2".
- B. **Cut the subsill 1/2" shorter than the opening width.**
- C. **Apply sealant** to the rough opening and the bottom of the subsill.
- D. **Center and fasten the subsill to the opening** using #8 x 2-1/2" flat head stainless steel screws or masonry screws with a minimum 1" embedment.
- E. **Seal the ends of the subsill to the opening** with 1/4" backer rod and sealant.

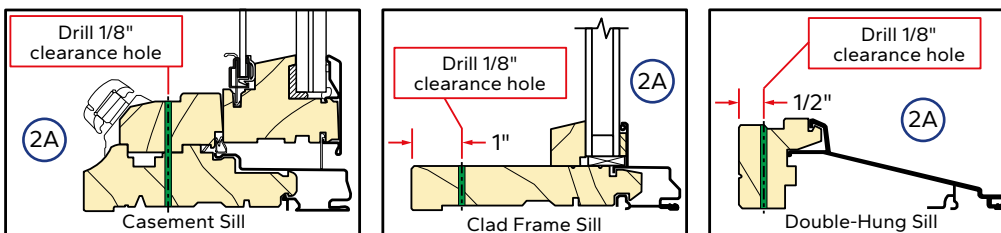


- F. **Cut two 6" long pieces of flashing tape.** Apply the tape to the ends of the subsill; lap 3" onto the subsill and 3" up the rough opening on each side.

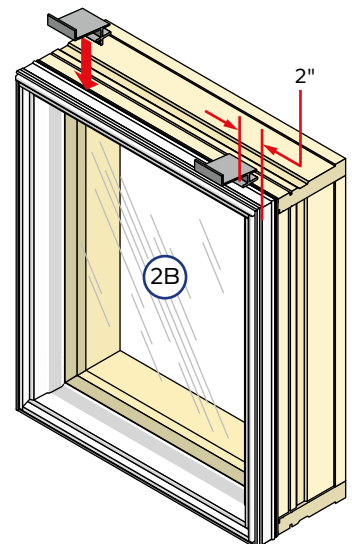
# 2 Preparing and Installing Windows:

- A. **Pre-drill 1/8" diameter installation holes** into the sill of the window. Place the holes 6" from each end and not more than 16" on center.

**Note:** On vent casements, place the holes so that they do not interfere with the roto operator and the latch points on the lock side of the window.

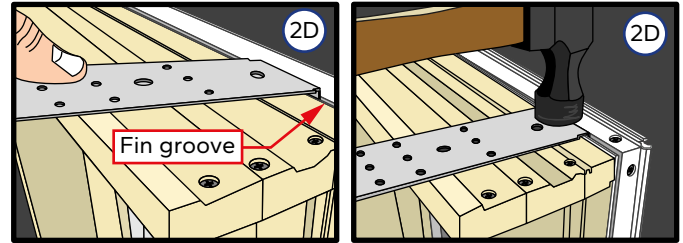


- B. **Place subsill clips on the bottom of each window** or stack of windows 2" from the ends and not more than 16" on center.
- C. **Install installation clips** on the head and left jamb of the first window or combination. Position the clips beginning 6" from each end or mullion joint, then not more than 16" on center.

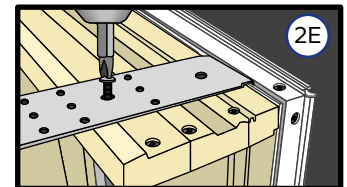


## 2 Preparing and Installing Windows (continued):

- D. **Install the installation clips into the fin grooves.** Hold the clip so that one corner is started into the fin groove. Using a hammer, tap that corner into the fin groove, then tap the other corner of the clip into the fin groove.



- E. **Drive one #6 x 5/8" screw** through the slotted hole in the center of the clip.



**Note: Screws should not be used on the sill of double-hung windows.**

- F. **Set the first window** or stack of windows on the left side of the opening as viewed from the exterior.

- G. **Insert one #10 x 3" or longer flat head stainless steel screw** into one pre-punched hole in the top installation clip. This will hold the window in place while shimming.

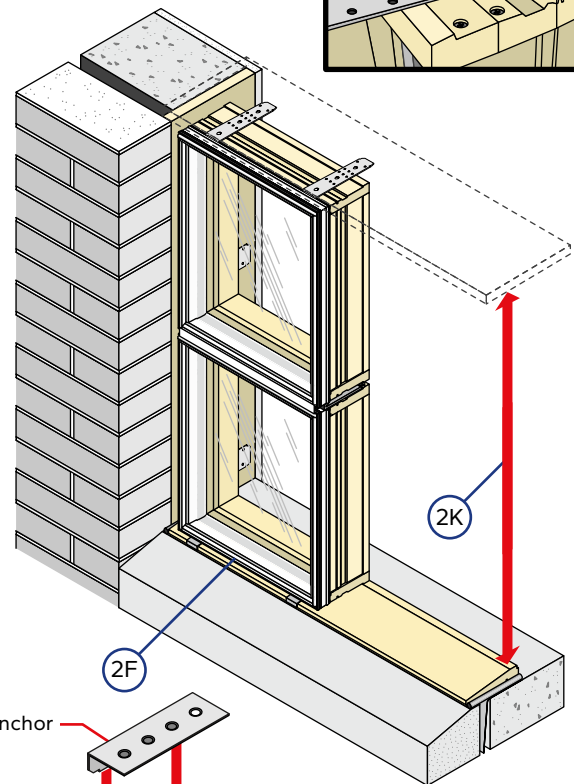
- H. **Place shims between the window frame and the rough opening,** 1" from the top and bottom of the window and at the mid-point of the window side. Adjust the shims to plumb and square the window in the opening. Also shim behind all jamb installation clips. **DO NOT** shim between the head of the window and the rough opening.

- I. **Fasten the remaining installation clips to the rough opening** by driving one #10 x 3" or longer flat head stainless steel screw into one of the pre-punched holes in each installation clip.

- J. **Install a #10 x 3" or longer flat head wood screw** into the pre-drilled screw holes at the sill.

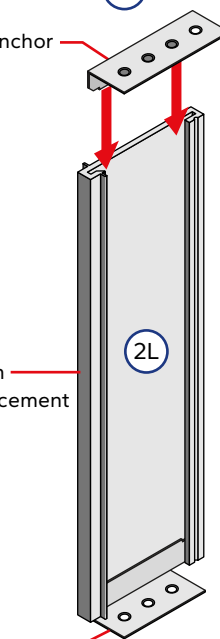
- K. **Measure from the top of the subsill** to the top of the opening at the open jamb of the window stack and cut the aluminum mullion reinforcement 3/8" shorter than the measurement.

- L. **Place a subsill mullion anchor at the bottom** and an angle mullion anchor at the top of the mullion reinforcement.



Angle mullion anchor

Mullion reinforcement

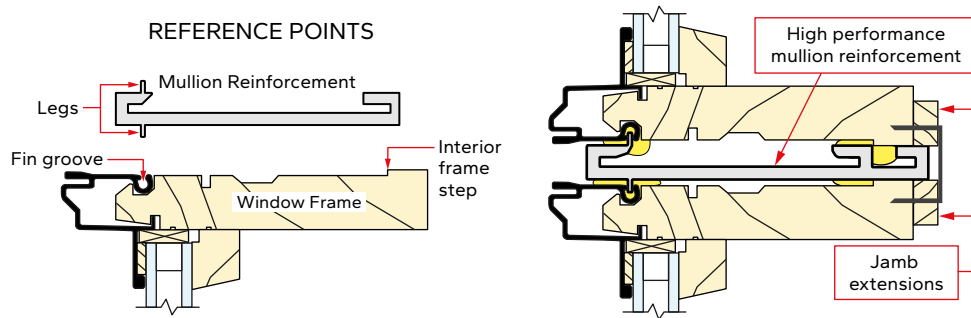


Subsill mullion anchor  
or Angle mullion anchor

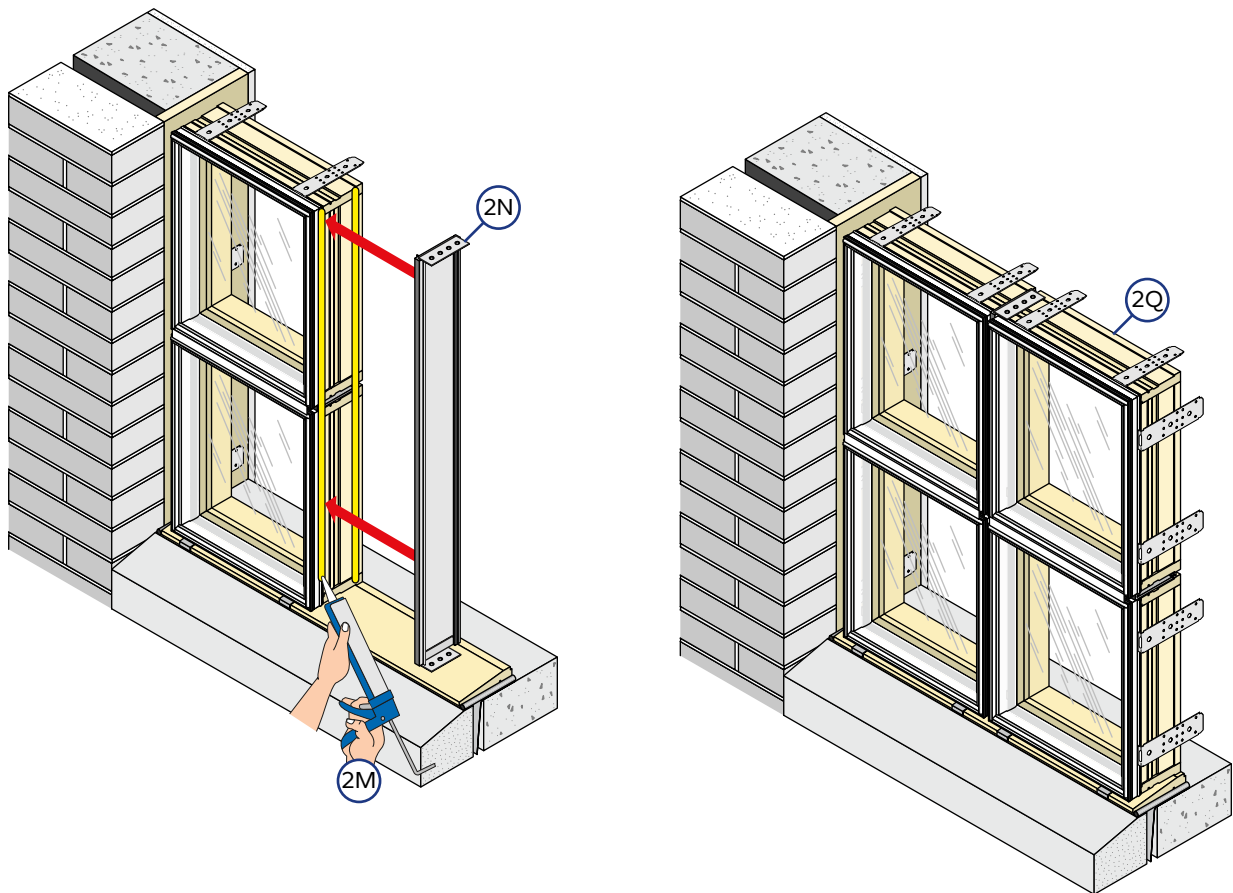
**Note: If subsill is not used, use an angle mullion anchor at the bottom of the mullion in place of the subsill mullion anchor.**

## 2 Preparing and Installing Windows (continued):

- M. Place a 3/8" continuous bead of sealant down the fin groove and interior frame step of the window(s).



- N. Position the mullion reinforcement with the two anchors facing away from the window(s). Press the leg of the mullion reinforcement into the fin groove and fasten the two anchors into the opening with #10 x 3" flat head stainless steel screws or masonry screws with a minimum 1" embedment.



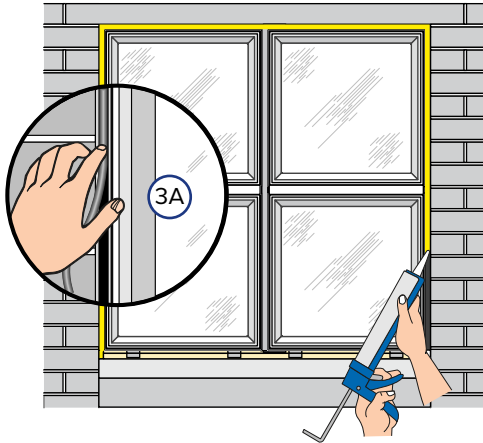
- O. Place a 3/8" continuous bead of sealant down the fin groove and interior frame step of the second window(s) on the side that will contact the mullion reinforcement.
- P. Place a bead of sealant over the heads of the screws of the sill mullion anchor.
- Q. Place the second window(s) next to the reinforcement so that the leg of the reinforcement is in the fin groove. Attach the combination at the head with installation clips and to the subsill at the sill using #8 x 2" flat head wood screws.
- R. Continue setting reinforcements and windows until the total combination is complete.

**Note:** The end combination needs to be attached to the opening at the jamb with installation clips or finish screws.

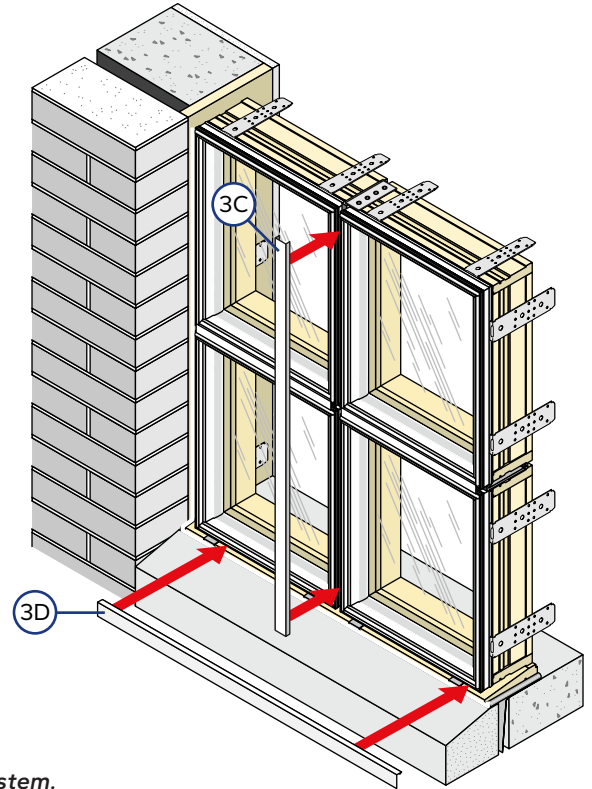
- S. From the exterior, fill the top of each mullion reinforcement with sealant.

### 3 Exterior Seal and Detailing:

- A. **From the exterior**, insert backer rod at the top and sides into the space between the window frames and the rough opening. The backer rod should be approximately 3/4" back from the face of the windows.



- B. **Apply a bead of high-quality exterior grade sealant** to the top and sides of the window. Connect the sealant at the sides to the sealant line between the subsill and the side of the opening. Connect the perimeter sealant at the top of the opening to the mullion reinforcement.
- C. **Cut a piece of mullion cover 5/8" shorter than the combinations**, center on combinations and use a rubber mallet to snap the mullion cover in place.
- D. **Place a 1" frame expander** at the sill of the opening.

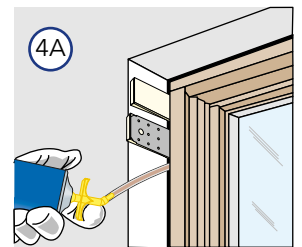


**Note: DO NOT seal the frame expander to the opening, as this is the weep system.**

### 4 Interior Seal:

**Caution: Ensure use of low pressure polyurethane window and door installation foams and strictly follow the foam manufacturer's recommendations for application. Use of high pressure foams or improper application of the foam may cause the window to bow and hinder operation.**

- A. **Apply insulation foam.** From the interior, apply foam at each clip location, between the installation clip and the rough opening. Then, insert the nozzle between the window frame and the rough opening and apply a 1" deep bead of insulation, ensuring the insulating foam is between the window frame (not the jamb extension) and the rough opening. Also ensure the insulating foam contacts the flashing tape at the bottom of the rough opening. This will allow room for expansion of the foam and will minimize squeeze out. Allow the foam to cure completely (usually 8 to 24 hours) before proceeding to the next step.



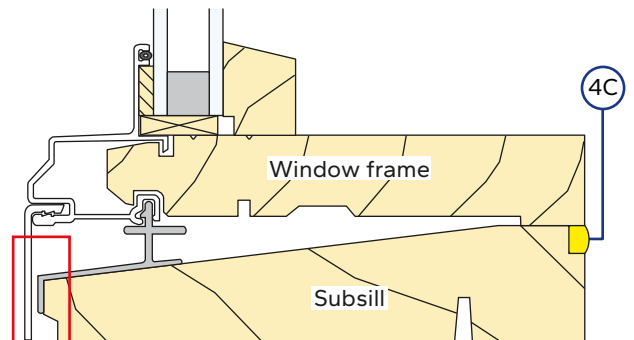
**Note: DO NOT completely fill the space from the back of the backer rod to the interior face of the opening.**

- B. **Check window operation** by opening and closing the window.

**Note: If the window does not operate correctly, check to make sure it is still plumb, level and that the sides are not bowed. If adjustments are required, remove the foam with a serrated knife. Adjust the shims and reapply the insulating foam sealant.**

- C. **Apply a bead of sealant to the interior groove of the subsill**, sealing it to the sill of the windows.

**Note: This bead of sealant must connect to the insulating foam at the sides of the opening.**



**Note: DO NOT apply sealant in this area.**