



Building with conscience.

Sto RapidGuard®

Air and Water-Resistive Barrier

Installation Guide
February 2025





Summary

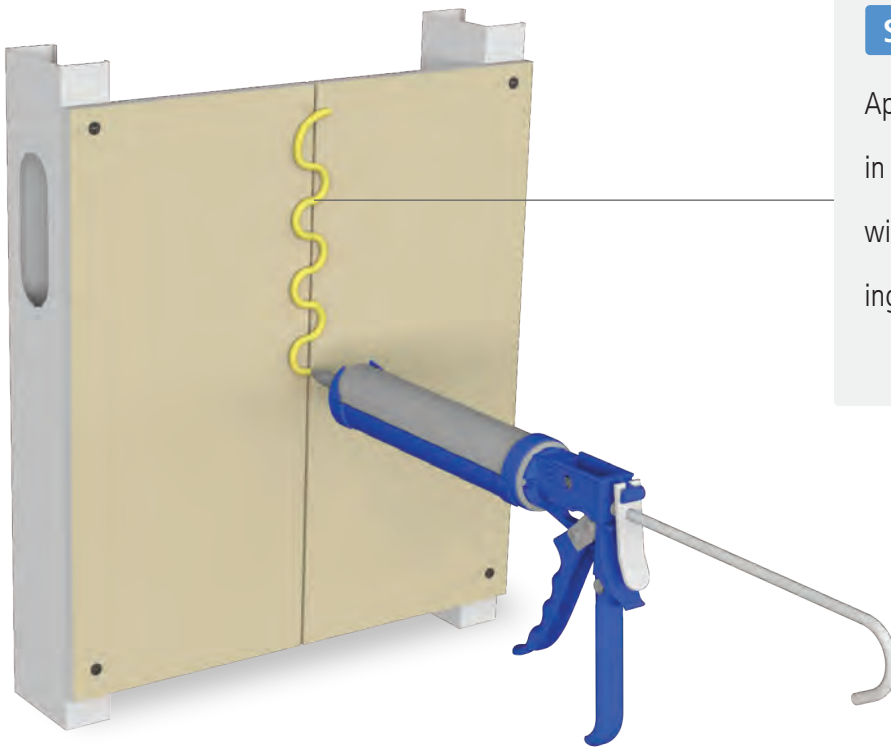
Sto RapidGuard® is a single-component, multi-use air barrier and waterproof material that seals rough openings, sheathing joints, seams, cracks, penetrations, and other transitions in above grade wall construction. Its fast-drying and flexible coverage makes it easy to provide high-quality air and moisture protection across multiple applications. Sto RapidGuard® works seamlessly with Sto air and water-resistive barriers (AWRB) including Sto Gold Coat, Sto Gold Coat TA, Sto AirSeal® and StoGuard VaporSeal®. Sto RapidGuard® is compatible with most common building materials, including: concrete, concrete masonry, brick, gypsum sheathing, wood, galvanized metal and cement-based sheathings.

General Notes

1. These notes apply for all applications of Sto RapidGuard®.
2. Apply with caulking gun. A zig-zag pattern has been found to be beneficial to assure sufficient material is in-place in a single pass before tooling, but other techniques may work better for certain situations.
3. A plastic spreading tool (automotive body-filler spreader) has been found to be well suited for tooling Sto RapidGuard®. Other tools such as a taping knife, spatula or trowel may be used. Tool or spread with DRY tools. DO NOT use soapy water when tooling.
4. Final width of application at sheathing joints is a minimum of 1-inch (25 mm) on both sides of the sheathing joint. The final width at all inside and outside corners is 1.5-inches (38 mm) on both sides. Where wide gaps are filled with Sto RapidGuard or spray foam, the width of the Sto RapidGuard must be minimum one inch (25 mm) on both sides of the gap.
5. IMPORTANT: Sto RapidGuard® can fill joints up to 1/2-inch (13 mm) wide. For gaps up to 1 inch (25mm), a low expanding urethane spray foam may be used to fill the gap prior to applying the Sto RapidGuard®. Alternative transition detailing may be required, or other steps, to correct the deficient condition.
6. Lap Sto RapidGuard® minimum 1-inch (25 mm) onto penetrating elements (pipes, ducts, electrical boxes, etc.) when sealing penetrations.
7. Spread to a final approximate thickness of 20-30 wet mils (0.5-0.8 mm) [about the thickness of a credit card] at sheathing joint. For rough openings, spread to a final thickness of 12-20 wet mils (0.25-0.5 mm). Seal all gaps or pinholes that remain after spreading with additional Sto RapidGuard®.
8. Each 29 oz. (0.86 L) cartridge will cover approximately 60-95 lineal feet (18-29 m) at a 2-inch-width and the recommended thickness. Each 20 oz. (0.6 kg) sausage will cover approximately 35-60 lineal feet (10-18 m) at a 2-inch-width and the recommended thickness. Coverage will vary depending on surface roughness and application thickness.
9. Apply when ambient and surface temperatures are between 33°F (0.6°C) and 100°F (37.8°C). Store at temperatures less than 80°F (27°C). Protect packages from direct sun and freezing.
10. Sto RapidGuard® may be applied to damp wood, concrete and concrete masonry, and will cure in high humidity conditions. Sto RapidGuard® may be applied to clean and dry pressure-treated and fire-retardant treated wood. Do not apply where standing water is present.
11. Full cure occurs within 24 hours when installed at standard conditions (70°F (21°C) and 50% RH). Sto RapidGuard® is a moisture-curing material; high humidity and damp substrates may reduce working time.
12. Sto RapidGuard® may be applied over or under any of the StoGuard® air and water-resistive barriers.
13. When top-coating Sto RapidGuard®, apply top-coat after the Sto RapidGuard® has skinned and within 48 hours of application. Do not leave exposed to weather more than 30 days. Requires permanent protection with wall cladding or other finish material.
14. Do not use below grade or in locations that are continually immersed in water.
15. Do not use as a structural sealant.
16. Do not use in place of appropriate through wall flashing.



Installation at Sheathing Joints



STEP 1 of 2

Apply Sto RapidGuard with a caulking gun in a zig-zag pattern over gypsum sheathing with butted joints or wood-based sheathing gapped 1/8 inch (3mm) typical.



STEP 2 of 2

Spread to a minimum width of 1 inch (25mm) on both side of the joint, and to a uniform thickness of 20-30 wet mils (0.5-0.8mm) while material is still wet - usually within 2 to 3 minutes of gun application.



Installation at Sheathing Joints with an Oversized Gap



STEP 1 of 4

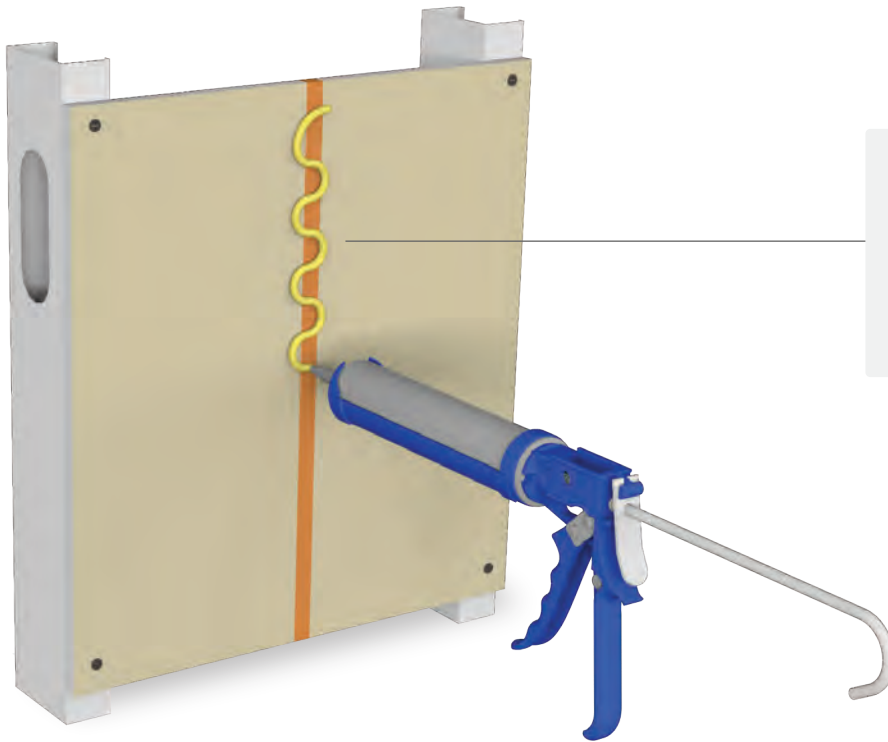
Fill wide gaps with spray foam. Gaps up to 1/2 inch (12.5 mm) in width can be filled with Sto RapidGuard. Use of spray foam as depicted facilitates application and reduces Sto RapidGuard consumption.



STEP 2 of 4

Trim spray foam flush with sheathing after spray foam has cured.

Installation at Sheathing Joints with an Oversized Gap (cont'd)



STEP 3 of 4

Apply Sto RapidGuard with a caulking gun in a zig-zag pattern.



STEP 4 of 4

Spread to a minimum width of 1 inch (25mm) on both side of the gap, and to a uniform thickness of 20-30 wet mils (0.5-0.8mm) while material is still wet - usually within 2 to 3 minutes of gun application. Final width minimum 2 inches (50 mm).

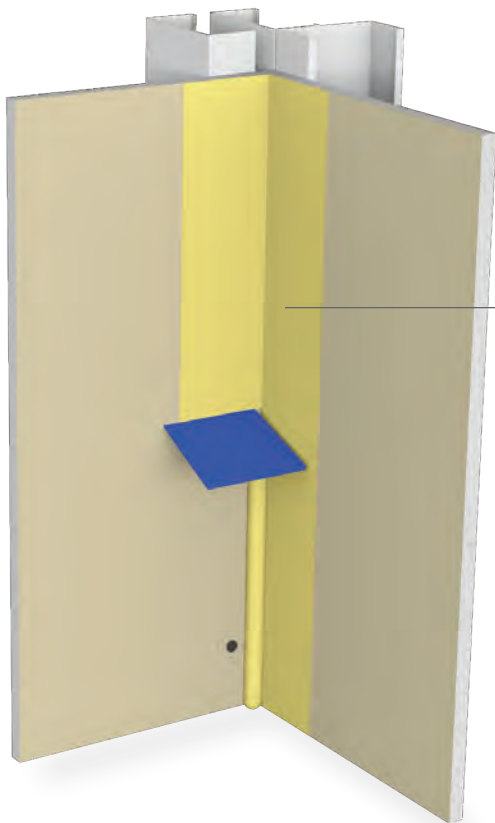


Installation at Inside Corner



STEP 1 of 2

Apply Sto RapidGuard using a caulking gun to the inside intersecting corners.



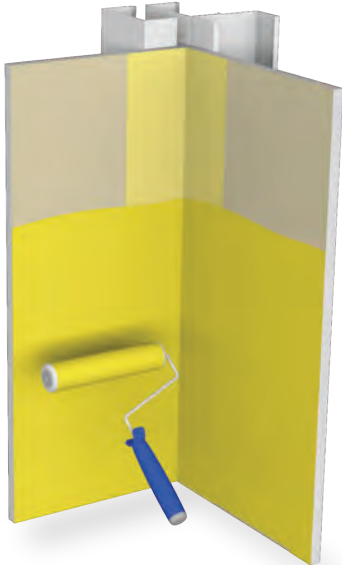
STEP 2 of 2

Spread Sto RapidGuard to a minimum 1.5 inches (38 mm) on both sides of intersecting corners and to a uniform thickness of 20-30 wet mils (0.5-0.8mm)

Installation of StoGuard Air and Moisture Barrier Top Coat



Sheathing Joint



Inside Corner

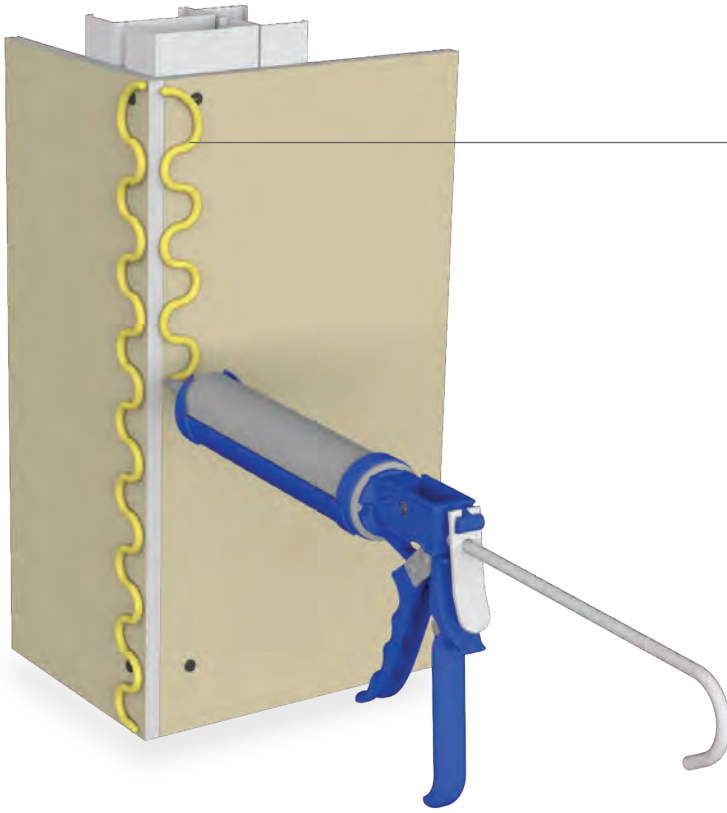


Outside Corner

Apply StoGuard air and water-resistive barrier as top coat after Sto RapidGuard skins and within 48 hours of Sto RapidGuard application. Alternatively, apply Sto RapidGuard as shown to dry StoGuard air water-resistive barrier already applied to the sheathing.

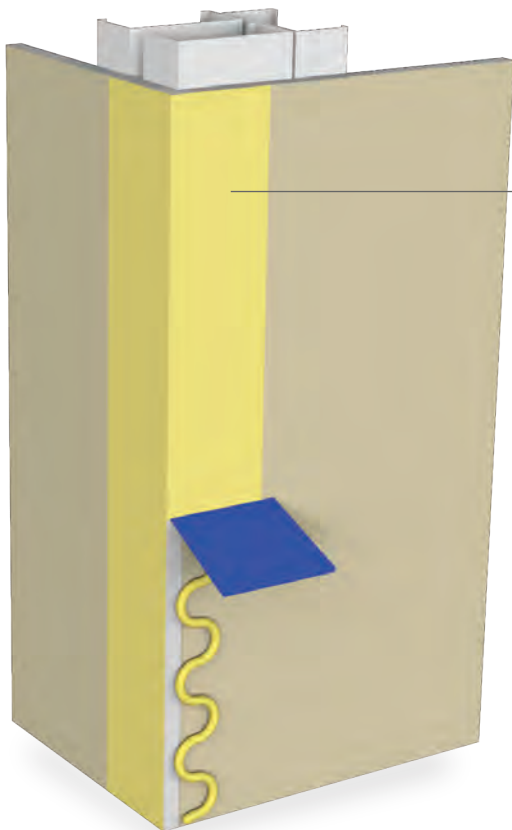


Installation at Outside Corner



STEP 1 of 2

Apply Sto RapidGuard using a caulking gun to the outside intersecting corners.

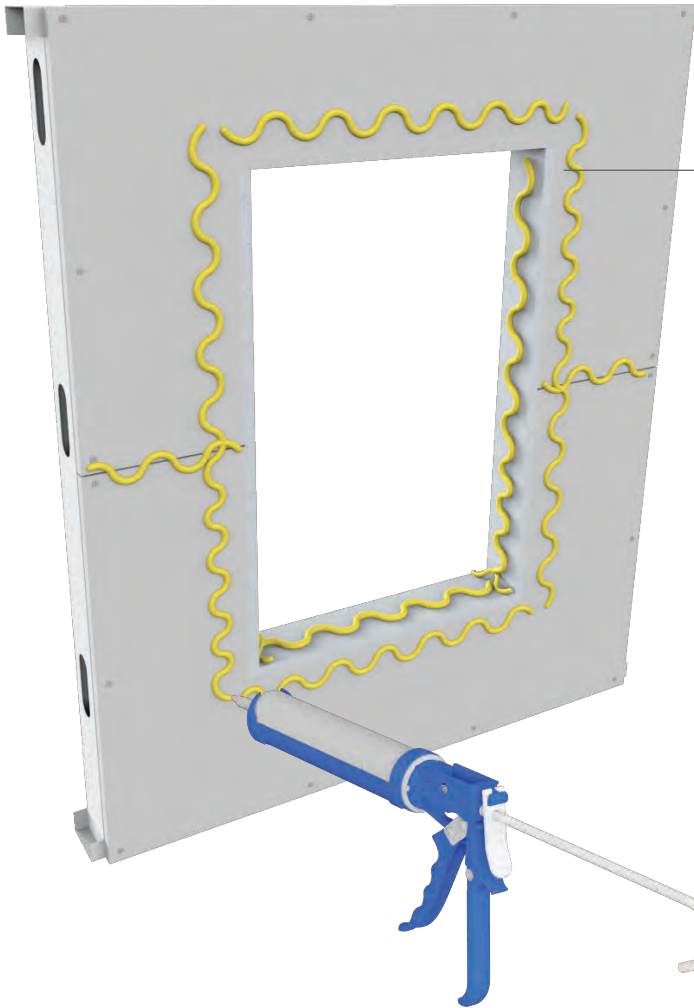


STEP 2 of 2

Spread Sto RapidGuard to a minimum 1.5 inches (38 mm) on both sides of intersecting corners.



Installation at Rough Opening

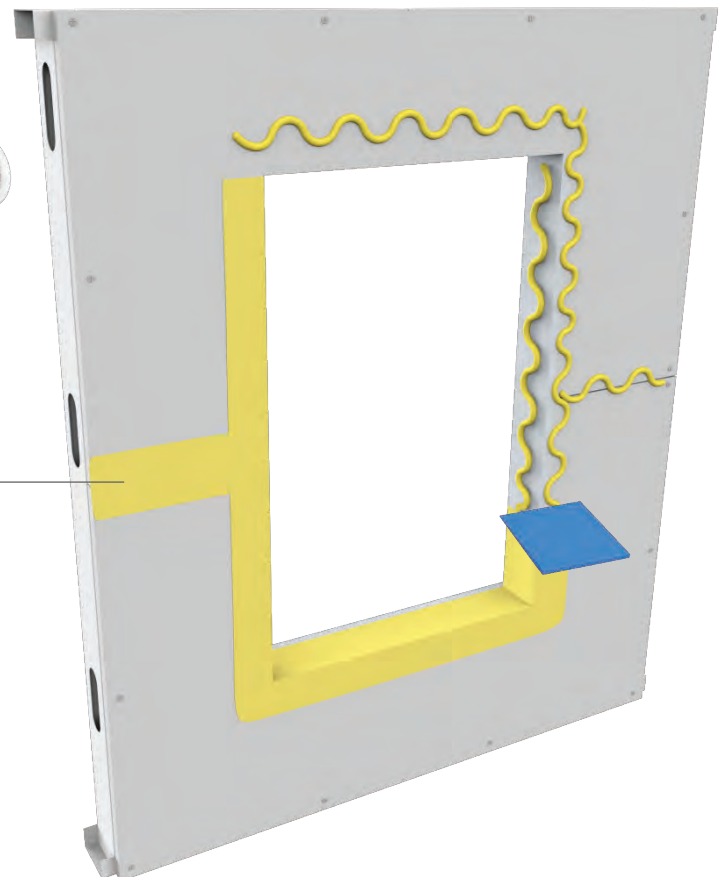


STEP 1 of 2

Apply Sto RapidGuard with a caulking gun in a zig-zag pattern into rough opening and around the perimeter.

STEP 2 of 2

Spread Sto RapidGuard to a uniform thickness of 12-20 wet mils (0.3-0.5mm) inside the opening and onto the face of the sheathing 2 inches minimum all the way around.

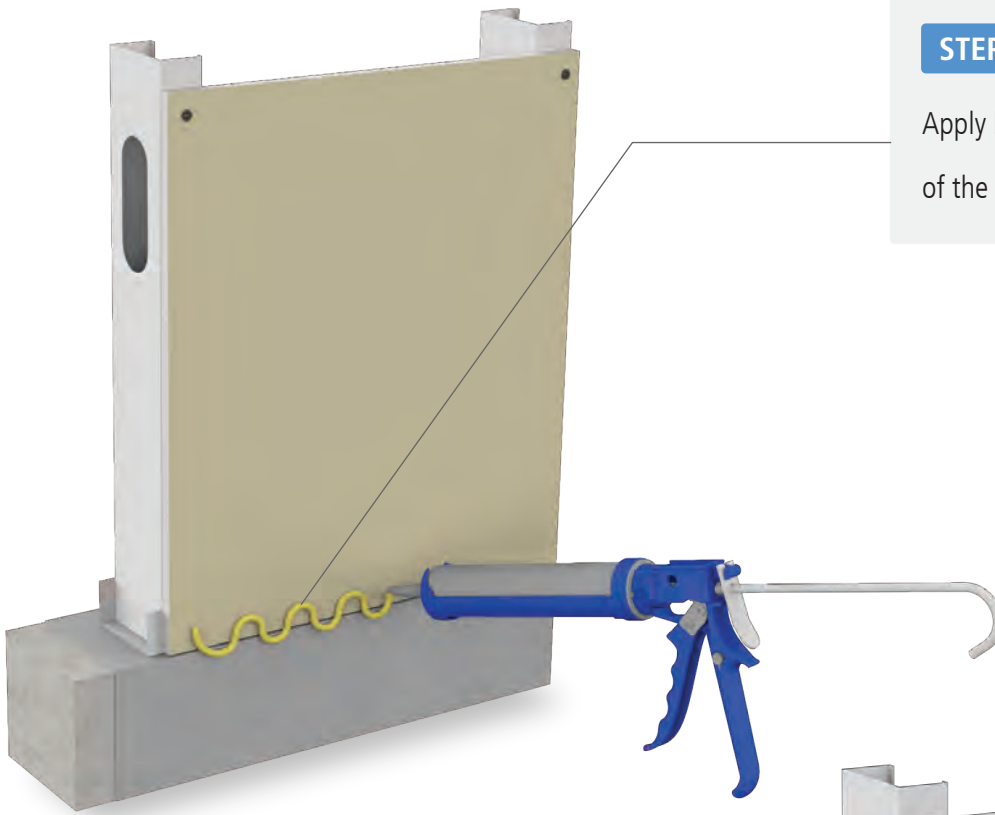




Installations at Transitions

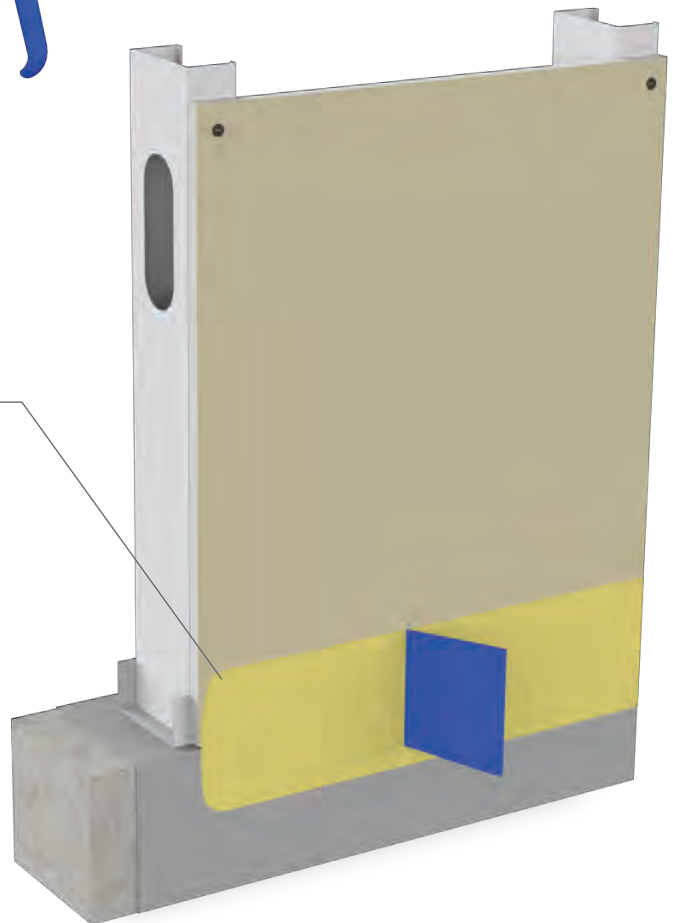
STEP 1 of 4

Apply bead of Sto RapidGuard at the base of the sheathing termination.

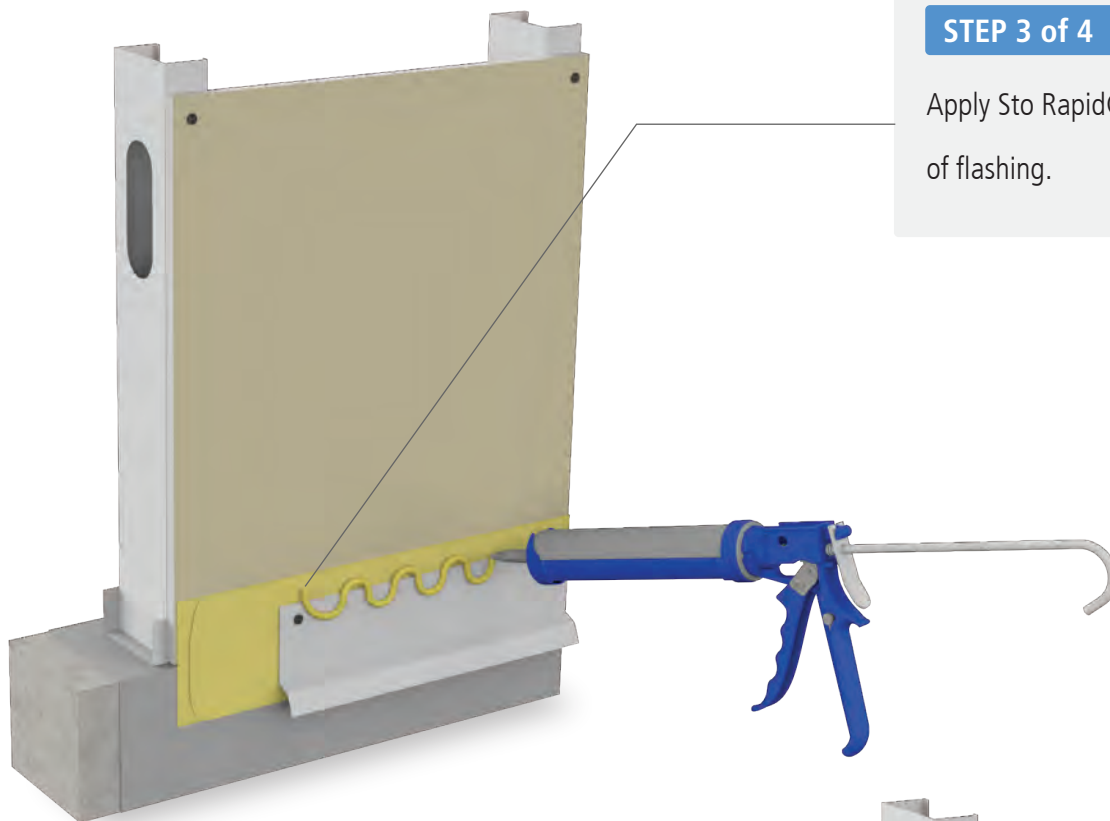


STEP 2 of 4

Immediately spread Sto RapidGuard to final width.



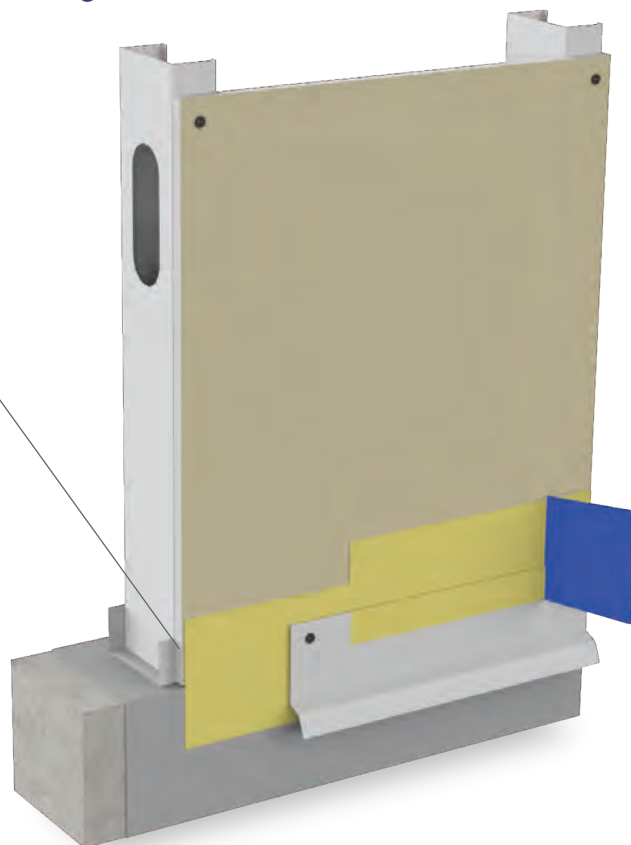
Installations at Flashing Transitions (cont'd)



STEP 3 of 4

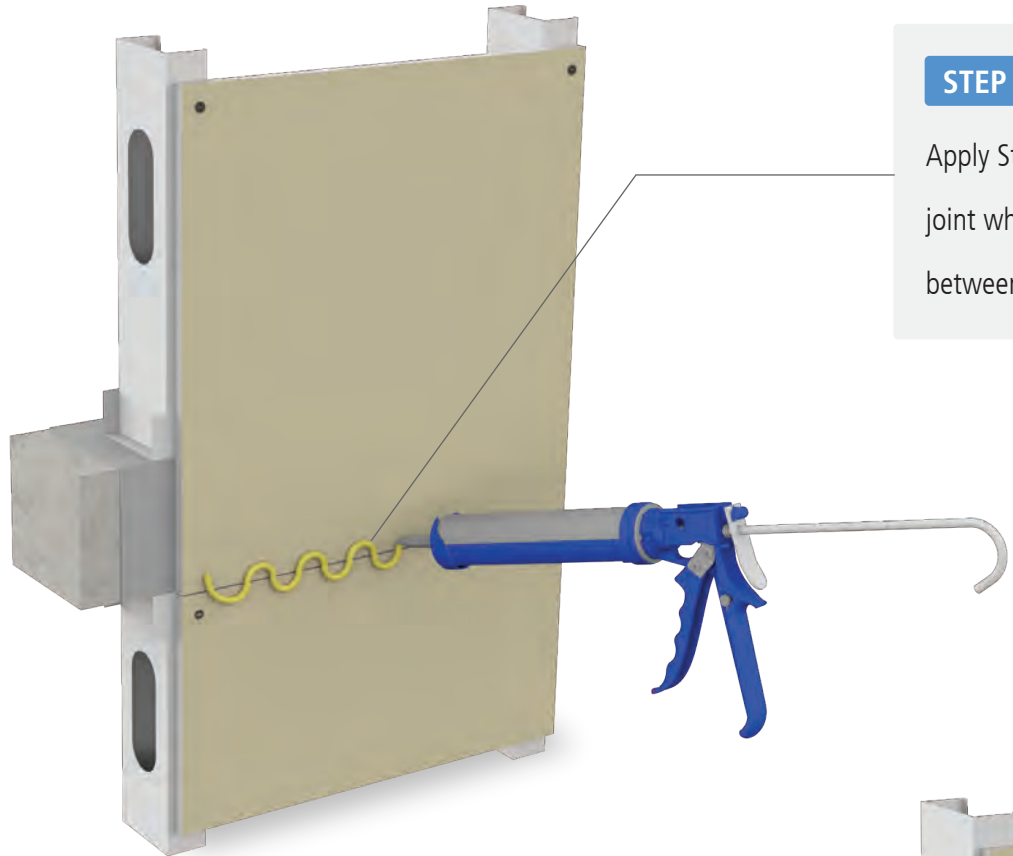
Apply Sto RapidGuard to top edge of flashing.

STEP 4 of 4
Spread to completely seal top of flashing and to cover fasteners





Fixed Floor Line Joint with Flashing

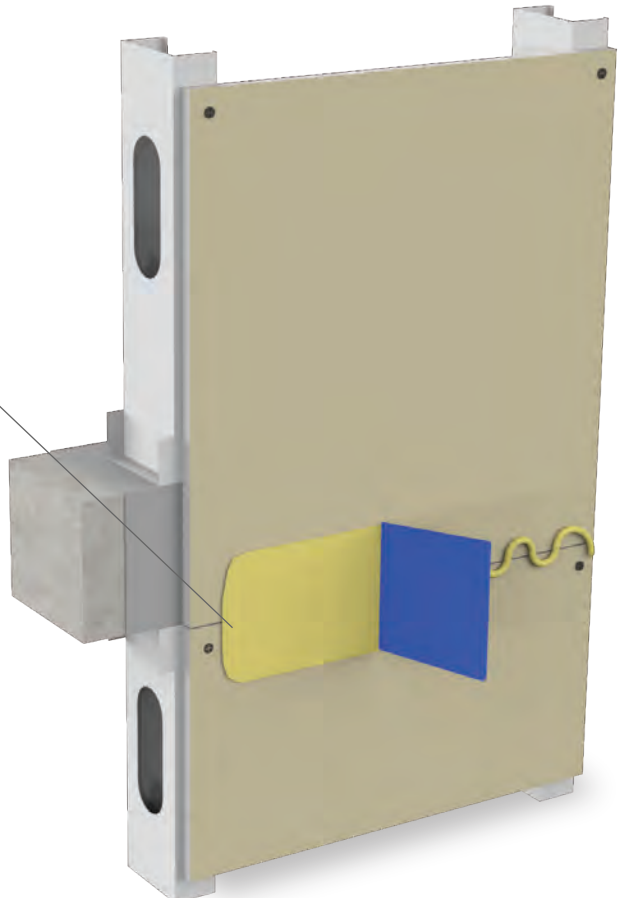


STEP 1 of 4

Apply Sto RapidGuard to the sheathing joint where no movement joint is provided between slab and framing.

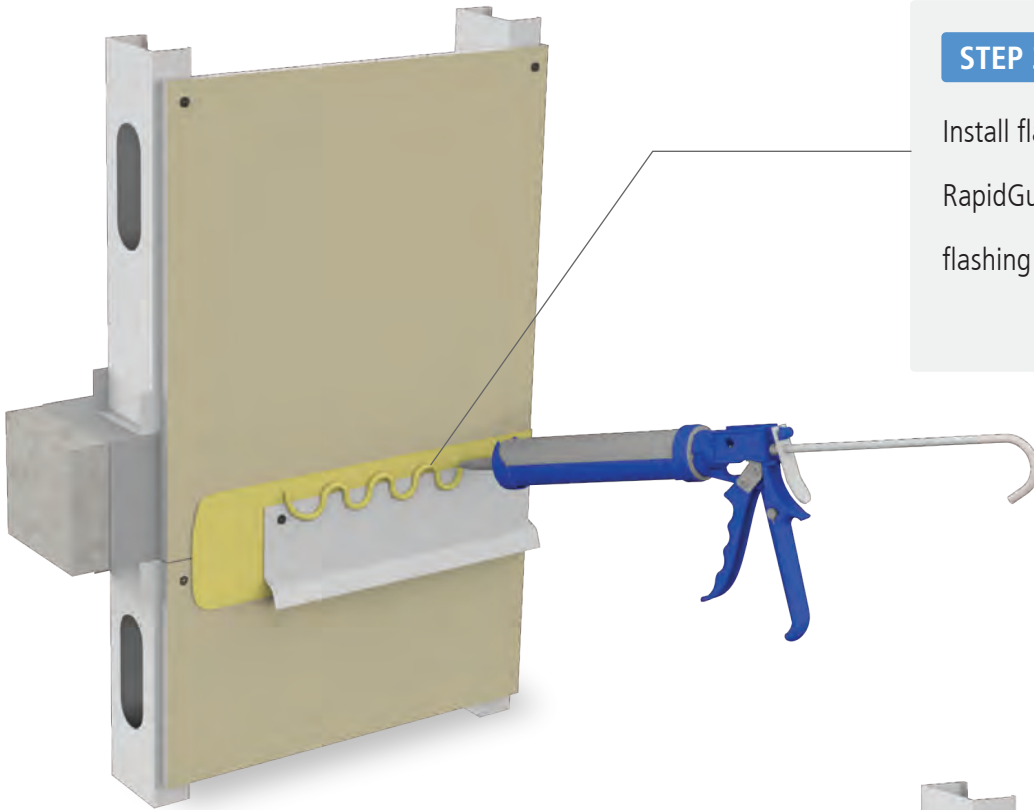
STEP 2 of 4

Spread to completely seal sheathing joint to the final width.





Fixed Floor Line Joint with Flashing (cont'd)

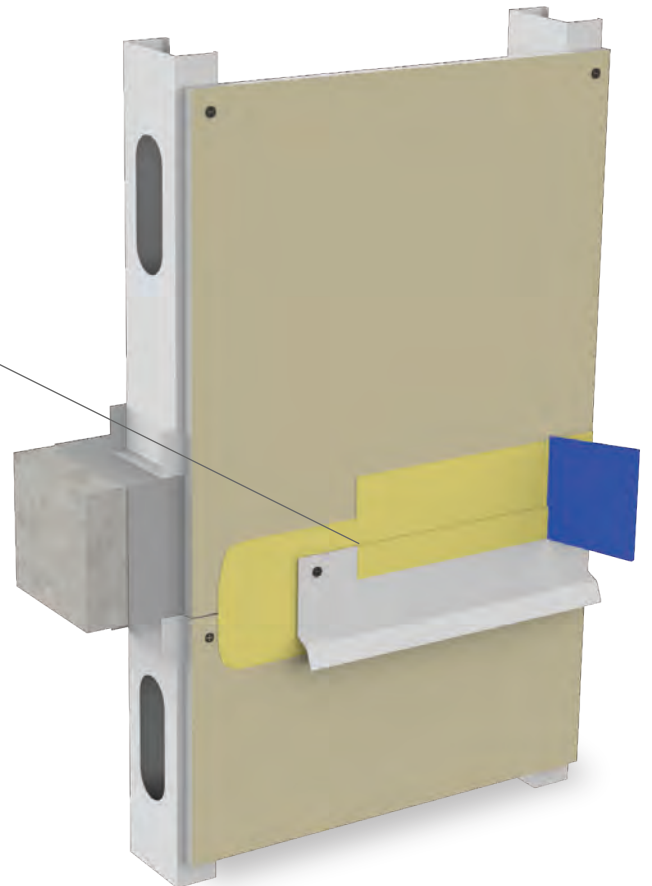


STEP 3 of 4

Install flashing and fasteners with Sto RapidGuard. Where possible, set top leg of flashing in a thick bead of Sto RapidGuard.

STEP 4 of 4

Spread to completely seal top of flashing and to cover fasteners.

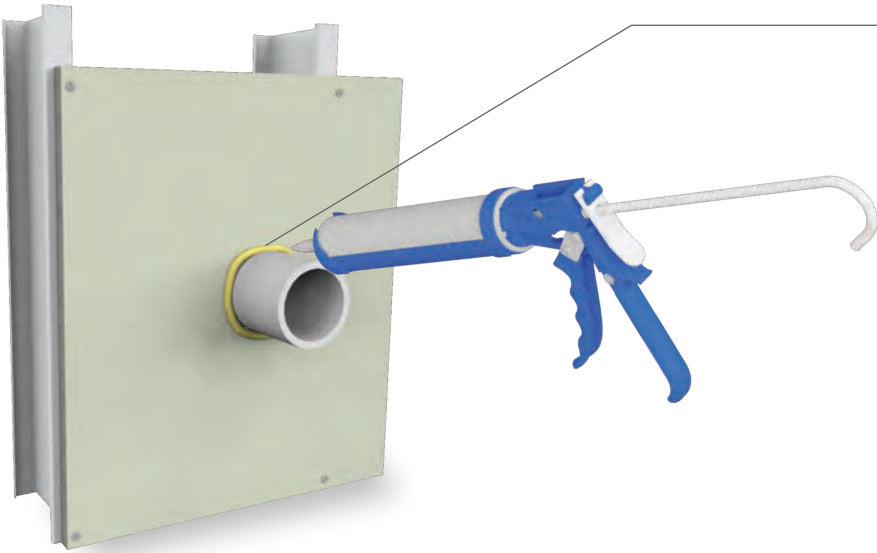




Installation at Mechanical and/or Pipe Penetrations with gaps up to 1/2 inch (12mm)

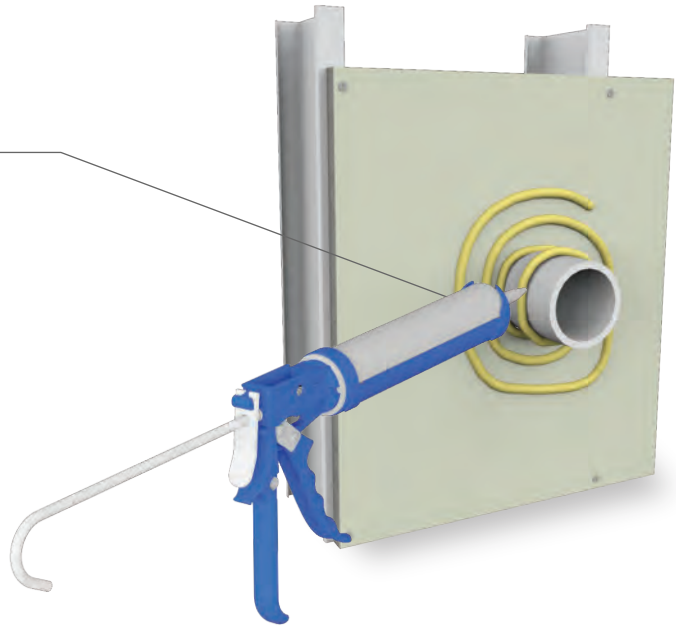
STEP 1 of 3

Fill gap with Sto RapidGuard



STEP 2 of 3

Apply additional Sto RapidGuard to sheathing and penetrating element.



STEP 3 of 3

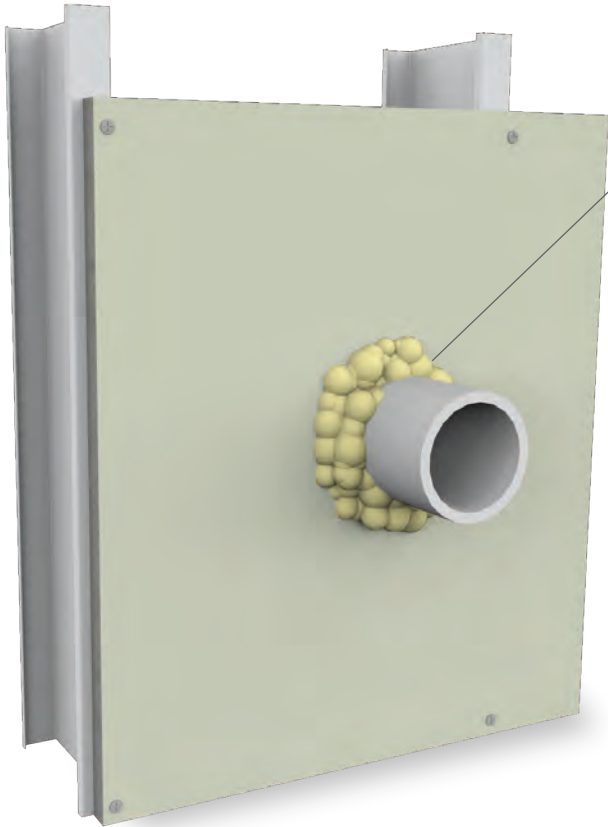
Spread Sto RapidGuard to lap a minimum of 1 inch (25mm) onto both the sheathing and penetrating element surfaces.



Installation at Mechanical and/or Pipe Penetrations with gaps wider than 1/2 inch (12mm)

STEP 1 of 4

Fill gap with low expanding urethane spray foam. Consult with product manufacturer for maximum gap size tolerances.



STEP 2 of 4

Trim excess spray foam

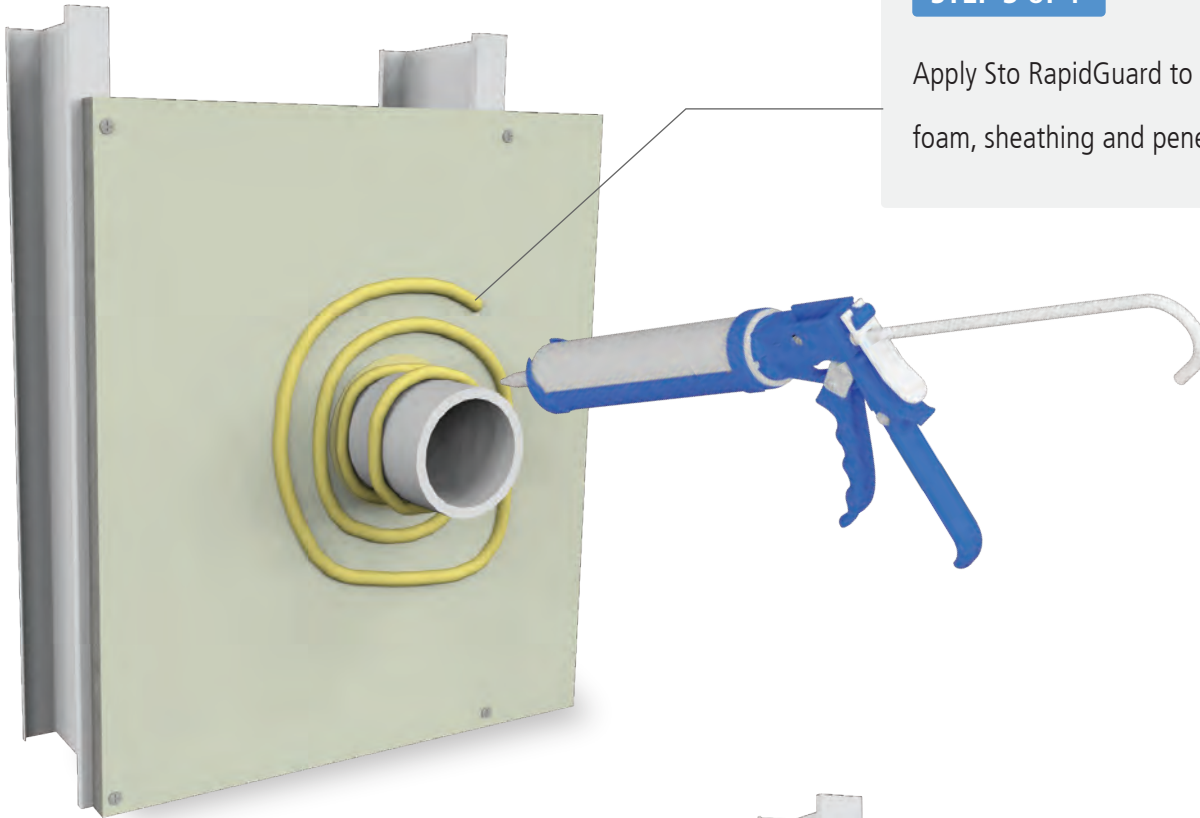




Installation at Mechanical and/or Pipe Penetrations with gaps wider than 1/2 inch (12mm) (cont'd)

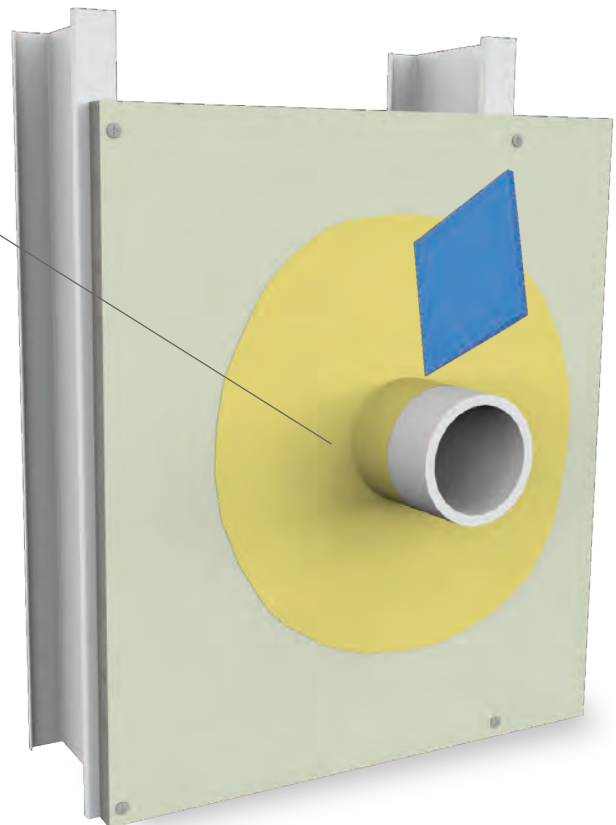
STEP 3 of 4

Apply Sto RapidGuard to the trimmed foam, sheathing and penetrating element.



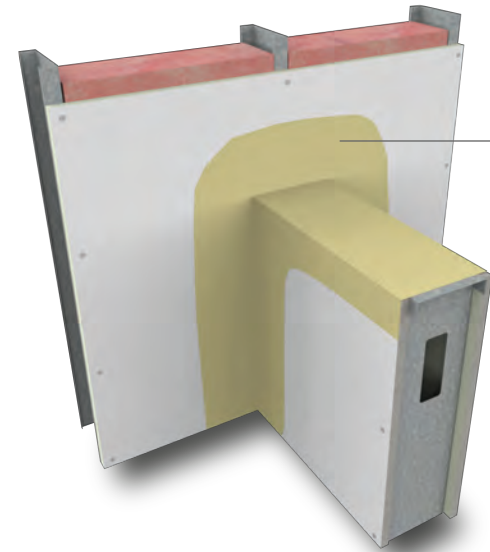
STEP 4 of 4

Spread Sto RapidGuard to completely cover spray foam and lap onto surrounding sheathing and penetrating element a minimum of 1 inch (25mm).



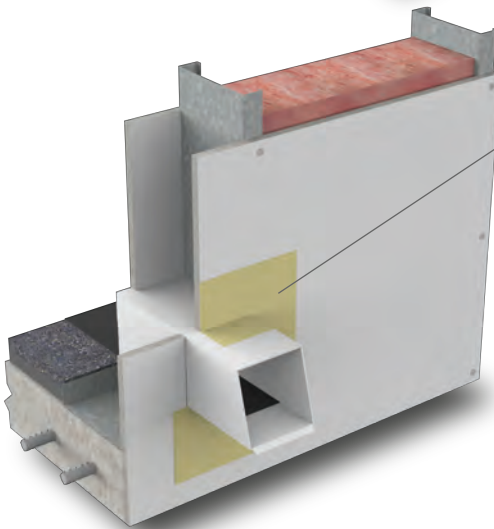


Other Detail Locations



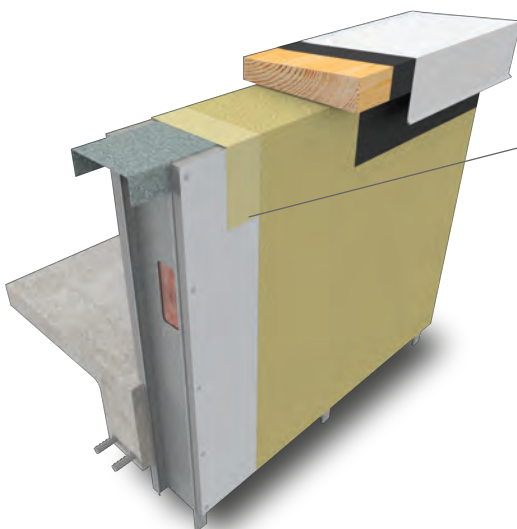
Low-to-High Wall Intersection

Apply Sto RapidGuard at intersecting wall of different heights. Follow application recommendations for corner applications.



Roof Scuppers or Similiar

Follow application recommendations for mechanical penetrations.



Parapet

Wrap top of parapet wall with Sto RapidGuard prior to installation of nailer and cap flashing. Provide continuous waterproofing on both sides of wall with StoGuard and/or wall membrane on inside of parapet. Follow application recommendations for corner applications.



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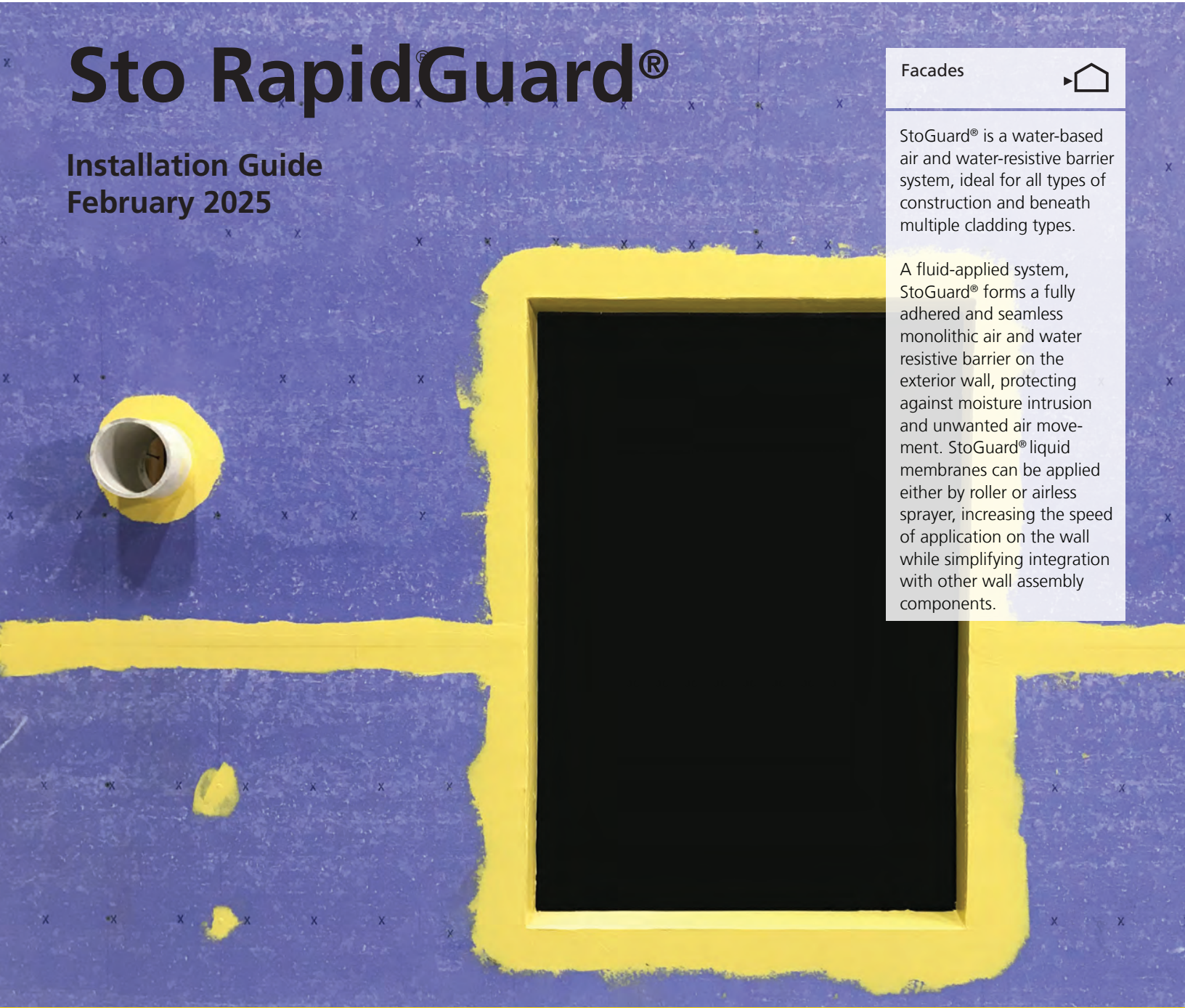
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Facades



StoGuard® is a water-based air and water-resistive barrier system, ideal for all types of construction and beneath multiple cladding types.

A fluid-applied system, StoGuard® forms a fully adhered and seamless monolithic air and water resistive barrier on the exterior wall, protecting against moisture intrusion and unwanted air movement. StoGuard® liquid membranes can be applied either by roller or airless sprayer, increasing the speed of application on the wall while simplifying integration with other wall assembly components.



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