The DensElement™ Barrier System unites science with technology. Comprised only with approved components, it has undergone rigorous performance testing for conformance with the current water-resistant and air barrier requirements of the International Building Code (IBC) and the International Energy Conservation Code (IECC). Today, those components include:

- DensElement™ Sheathing from Georgia-Pacific Gypsum
- R-Guard® FastFlash® Liquid Flashing Membrane from PROSOCO

REVOLUTIONIZING THE WATER-RESISTIVE AND AIR BARRIER SYSTEM

Keep walls dry. It sounds simple, but time and time again water infiltration is the main culprit for failure within a building envelope. History has proven that typical construction will allow some moisture to penetrate either the structural wall or rough openings. It’s not a question of if moisture will get into a building; it’s a question of when.

So how can you ensure that when moisture gets into your building that it can get out too? The DensElement™ Barrier System is the answer.

Until now, industry-accepted water-resistive and air barrier (WRB-AB) products have not delivered fully:

- Fabric wraps may rip and tear in even mild breezes, let alone strong storms. Even where they stay on, staple holes may provide air and water access to the structural walls.
- Conventional fluid-applied WRB-AB membrane systems can be time and labor intensive; requiring installers to coat the entire sheathing surface with potential coating thickness variations.
- Low permeable peel-and-stick membranes can trap and hold water if moisture penetrates. In sheathing through the seams in the membrane, accelerating the very problem of moisture-related decay they were designed to prevent.

SCIENTIFICALLY ENHANCED

The layered construction of the DensElement™ Sheathing chemically bonds a water-resistive and air barrier (WRB-AB) directly within its gypsum core and is finished with GOLD fiberglass mats for moisture and mold resistance. It completely eliminates the need for an additional WRB-AB to be installed over the face of the sheathing during installation – no more building wrap, no more fluid-applied membranes and no peel-and-stick membranes required.

Every seam or penetration presents a potential for moisture intrusion. So, for maximum protection, the system is complete only with tested and approved PROSOCO® R-Guard® FastFlash® Liquid Flashing, which fills and seals joints, fasteners, openings, penetrations and transitions.

INSTALLATION OVERVIEW

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CAUTION:
For fire, safety and use information go to www.buildgp.com/safetyinfo.

WARRANTY:
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INSTALLATION OVERVIEW

DensElement™  Barrier System

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1. Apply R-Guard® FastFlash® liquid flashing over the DensElement™ Sheathing joint in a zig-zag or ribbon pattern dispensed from a tube type container. Cover a minimum of 1-in. on both sides of the joint.
2. With a 4-in. or 6-in. straight edge knife or trowel, spread evenly over the sheathing joint.
3. Apply at a rate to achieve a minimum wet mil thickness of 16 mils over the entire joint area.

2. Prime exposed gypsum edges of the DensElement™ Sheathing with R-Guard® PorousPrep™ Water-Based Primer.
3. Apply R-Guard® FastFlash® liquid flashing over the inside and/or outside corner in a zig-zag or ribbon pattern dispensed from a tube type container. Cover a minimum of 2-in. on both sides of the corner.
4. With a 4- or 6-in. straight edge knife or trowel, spread R-Guard® FastFlash® liquid flashing over the entire width of the corner.
5. Apply at a rate to achieve a minimum wet mil thickness of 16 mils over the corner area.

1. The fasteners should be spattered with R-Guard® FastFlash® liquid flashing and wiped down with a straight edge tool leaving a minimum wet mil thickness of 16 mils over the metal fasteners.

2. If the gap between materials is over 1/8-in., fill the gap between the DensElement™ Sheathing and adjacent material with a backer rod. If necessary, prime the adjacent material with primer per the material manufacturer’s recommendations.
3. Apply R-Guard® FastFlash® liquid flashing over the entire width of the opening sill, jamb and header in a zig-zag or ribbon pattern dispensed from a tube type container.
4. With a 4-in. or 6-in. straight edge knife or trowel, spread R-Guard® FastFlash® liquid flashing over the entire width of the opening sill, jamb and header in a zig-zag or ribbon pattern dispensed from a tube type container.
5. Apply at a rate to achieve a minimum wet mil thickness of 16 mils over the opening area, leaving no exposed sheathing.

1. Mechanically secure penetrations.
2. If the gap between materials is over 1/8-in., install backer rod between penetration and DensElement™ Sheathing to form a back dam regardless of size of penetration or opening.
3. Apply R-Guard® FastFlash® liquid flashing from a tube type container around the penetration.
4. Use a spatula to feather and completely seal the joint around the penetration.

**JOINTS**

**VERTICAL CORNERS**

**FASTENERS**

**ROUGH OPENINGS**

**PIPE PENETRATIONS**

**MATERIAL TRANSITIONS**

*Coverage assumes that joints and corners are butted tightly together and gaps and voids are prefilled with backer rod.*

*Zero waste.*

*Coverage assumes that joints and corners are butted tightly together and gaps and voids are prefilled with backer rod.*

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1. Apply R-Guard® FastFlash® liquid flashing over the DensElement™ Sheathing joint in a zig-zag or ribbon pattern dispensed from a tube type container. Cover a minimum of 1-in. on both sides of the joint.

2. With a 4- or 6-in. straight edge knife or trowel, spread evenly over the sheathing joint.

3. Apply at a rate to achieve a minimum wet mil thickness of 16 mils over the entire joint area, leaving no exposed sheathing.

1. Prime exposed gypsum edges of the DensElement™ Sheathing with R-Guard® PorousPrep™ Water-Based Primer.

2. Apply R-Guard® FastFlash® liquid flashing over the inside and/or outside corner in a zig-zag or ribbon pattern dispensed from a tube type container. Cover a minimum of 2-in. on both sides of the corner.

3. With a 4- or 6-in. straight edge knife or trowel, spread evenly over the sheathing corner.

4. Apply at a rate to achieve a minimum wet mil thickness of 16 mils over the corner area.

1. The fasteners should be spotted with R-Guard® FastFlash® liquid flashing and wiped down with a straight edge tool leaving a minimum wet mil thickness of 16 mils over each fastener.

ROUGH OPENINGS

1. Prime exposed gypsum edges of the DensElement™ Sheathing with R-Guard® PorousPrep™ Water-Based Primer.

2. Apply R-Guard® FastFlash® liquid flashing into the entire width of the opening dispensed from a tube type container.

3. Apply R-Guard® FastFlash® liquid flashing onto the following openings:
   a. Sills
   b. Jambs
   c. Headers

4. Apply R-Guard® FastFlash® liquid flashing over the entire width of the opening sill, jamb and header in a zig-zag or ribbon pattern dispensed from a tube type container. Cover a minimum of 2-in. on the sheathing surface adjacent to the opening.

5. With a 4- or 6-in. straight edge knife or trowel, spread R-Guard® FastFlash® liquid flashing over the entire width of the sill, jamb and header.

6. With a 4- or 6-in. straight edge knife or trowel, spread R-Guard® FastFlash® liquid flashing over the DensElement™ Sheathing adjacent to the opening sill, jamb and header in a zig-zag or ribbon pattern dispensed from a tube type container. Cover a minimum of 2-in. on the sheathing surface adjacent to the opening.

7. Apply at a rate to achieve a minimum wet mil thickness of 16 mils over the opening area, leaving no exposed sheathing.

PIECE PENETRATIONS

1. If the gap between materials is over 1/8-in., fill the gap between the DensElement™ Sheathing and adjacent material with a backer rod. If necessary, prime the adjacent material with primer per the material manufacturer’s recommendations.

2. Apply a thick bead of R-Guard® FastFlash® liquid flashing from a tube type container around the penetration.

3. Use a spatula to feather and completely seal the joint around the penetration.

MATERIAL TRANSITIONS

1. The gap between materials is over 1/8-in., install backer rod between penetration and DensElement™ Sheathing to form a airtight seal between the opening and opening.

2. If necessary, prime the adjacent material with primer per the material manufacturer’s recommendations.

3. Apply R-Guard® FastFlash® liquid flashing over the DensElement™ Sheathing adjacent to the opening in a zig-zag or ribbon pattern dispensed from a tube type container. Ensure the flashing is applied with a minimum of 2-in. on each substrate material surface.

4. With a 4- or 6-in. straight edge knife or trowel, spread R-Guard® FastFlash® liquid flashing over the material transition joint.

5. Apply at a rate to achieve a minimum wet mil thickness of 16 mils.

ROUGH OPENINGS/PIPE PENETRATIONS

1. For each of the following applications:
   a. Sills
   b. Jamb
   c. Headers

2. Apply R-Guard® FastFlash® liquid flashing from a tube type container around the penetration.

3. Use a spatula to feather and completely seal the joint around the penetration.

4. Apply at a rate to achieve a minimum wet mil thickness of 16 mils.

MATERIAL TRANSITIONS

1. For each of the following applications:
   a. Sills
   b. Jamb
   c. Headers

2. Apply R-Guard® FastFlash® liquid flashing from a tube type container around the penetration.

3. Use a spatula to feather and completely seal the joint around the penetration.

4. Apply at a rate to achieve a minimum wet mil thickness of 16 mils.

JOINTS

1. If the fasteners should be applied to the DensElement™ Sheathing and adjacent material with a backer rod, install a bead of R-Guard® FastFlash® liquid flashing and wipe down with a straight edge tool.

2. Apply a bead of R-Guard® FastFlash® liquid flashing on the DensElement™ Sheathing to form a seal between the opening and opening.

3. Apply R-Guard® FastFlash® liquid flashing onto the following openings:
   a. Sills
   b. Jambs
   c. Headers

4. Apply at a rate to achieve a minimum wet mil thickness of 16 mils over the opening area, leaving no exposed sheathing.

VERTICAL CORNERS

1. Apply R-Guard® FastFlash® liquid flashing over the inside and/or outside corner in a zig-zag or ribbon pattern dispensed from a tube type container. Cover a minimum of 2-in. on both sides of the corner.

2. With a 4- or 6-in. straight edge knife or trowel, spread evenly over the sheathing corner.

3. Apply at a rate to achieve a minimum wet mil thickness of 16 mils over the corner area.

FASTENERS

1. Coverage assumes that joints and corners are butted tightly together and gaps and voids are prefilled with backer-rod.

2. Assumes zero waste.

<table>
<thead>
<tr>
<th>DIMENSION</th>
<th>USE</th>
<th>COVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 oz.</td>
<td>“sausage”</td>
<td>80-90 lin. ft</td>
</tr>
<tr>
<td>30 oz.</td>
<td>&quot;sausage&quot;</td>
<td>50-60 lin. ft</td>
</tr>
</tbody>
</table>

Sealing Joints, Vertical Corners, Fasteners, Openings, Penetrations and Transitions for Water-Resistive Barrier and Air Barrier Compliance

INSTALLATION INSTRUCTIONS
INSTALLATION INSTRUCTIONS
Sealing Joints, Vertical Corners, Fasteners, Openings, Penetrations and Transitions for Water-Resistant Barrier and Air Barrier Compliance

Joints /////////////////////////////////////////////////////////////////////////////////////////////////////////////////

1. Apply R-Guard® FastFlash® liquid flashing over the DensElement™ Sheathing joint in a zig-zag or ribbon pattern dispensed from a tube type container. Cover a minimum of 1 in. on both sides of the joint.

2. With a 4- or 6-in. straight edge knife or trowel, spread evenly over the sheathing joint.

3. Apply at a rate to achieve a minimum wet mil thickness of 16 mils over the entire joint area, leaving no exposed sheathing.

4. Prime exposed gypsum edges of the DensElement™ Sheathing with R-Guard® PorousPrep™ Water-Based Primer.

5. Apply R-Guard® FastFlash® liquid flashing over the inside and/or outside corner in a zig-zag or ribbon pattern dispensed from a tube type container. Cover a minimum of 2 in. on both sides of the corner.

6. With a 4- or 6-in. straight edge knife or trowel, spread evenly over the sheathing corner.

7. Apply at a rate to achieve a minimum wet mil thickness of 16 mils over the corner area.

Vertical Corners /////////////////////////////////////////////////////////////////////////////////////////////////

1. Prime exposed gypsum edges of the DensElement™ Sheathing with R-Guard® PorousPrep™ Water-Based Primer.

2. Apply a bead of R-Guard® FastFlash® liquid flashing into the entire width of the interior corners of the opening dispensed from a tube type container.

3. Apply R-Guard® FastFlash® liquid flashing onto the following openings:
   a. Sills
   b. Jambs
   c. Headers

4. Apply R-Guard® FastFlash® liquid flashing over the entire width of the opening sill, jamb and header in a zig-zag or ribbon pattern dispensed from a tube type container. Cover a minimum of 2 in. of the sheathing surface adjacent to the opening.

5. With a 4- or 6-in. straight edge knife or trowel, spread R-Guard® FastFlash® liquid flashing over the entire width of the sill, jamb, header and DensElement™ Sheathing in a zig-zag or ribbon pattern dispensed from a tube type container. Ensure the flashing is applied with a minimum of 2 in. on each substrate material surface.

6. Apply at a rate to achieve a minimum wet mil thickness of 16 mils over the opening area, leaving no exposed sheathing.

Fasteners /////////////////////////////////////////////////////////////////////////////////

1. The fasteners should be applied with R-Guard® FastFlash® liquid flashing and aligned with a straight edge tool leaving a minimum of 16 mils over the exposed sheathing.

2. Mechanically secure penetrations.

3. If the gap between materials is over 1/8 in., install backer rod between penetration and DensElement™ Sheathing to form a crack dam regardless of size of penetration or opening.

4. Apply a thick bead of R-Guard® FastFlash® liquid flashing from a tube type container around the penetration.

5. Use a spatula to feather and completely seal the joint around the penetration.

Pipe Penetrations /////////////////////////////////////////////////////////////////////////////////

1. If the gap between materials is over 1/8 in., install backer rod between penetration and DensElement™ Sheathing to form a crack dam regardless of size of penetration or opening.

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Material Transitions /////////////////////////////////////////////////////////////////////////////

1. The fasteners should be applied with R-Guard® FastFlash® liquid flashing and aligned with a straight edge tool leaving a minimum of 16 mils over the exposed sheathing.

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Coverage Assumptions

- Coverage assumes that joints and corners are butted tightly together and gaps and voids are prefilled with backer rod.
- Assumes zero waste

| DENSELEMENT™ BARRIER SYSTEM / APPLIED FLASHING APPLICATION CHART |
|-----------------------------|-----------------------------|
| 20 oz. “sausage” | 80-90 lin. ft | 25-30 lin. ft |

Coverage: 2-in. wide joint at 16 mils

Coverage: 2x4 framed opening at 16 mils

Container

- Assumes zero waste

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INSTALLATION OVERVIEW

REVOLUTIONIZING THE WATER-RESISTIVE AND AIR BARRIER SYSTEM

INSTALLATION OVERVIEW

DensElement ™ Barrier System

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DensElement.com
GP Tech Hotline: 800-201-2919
PROSOCO Tech Hotline: 800-358-7809

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