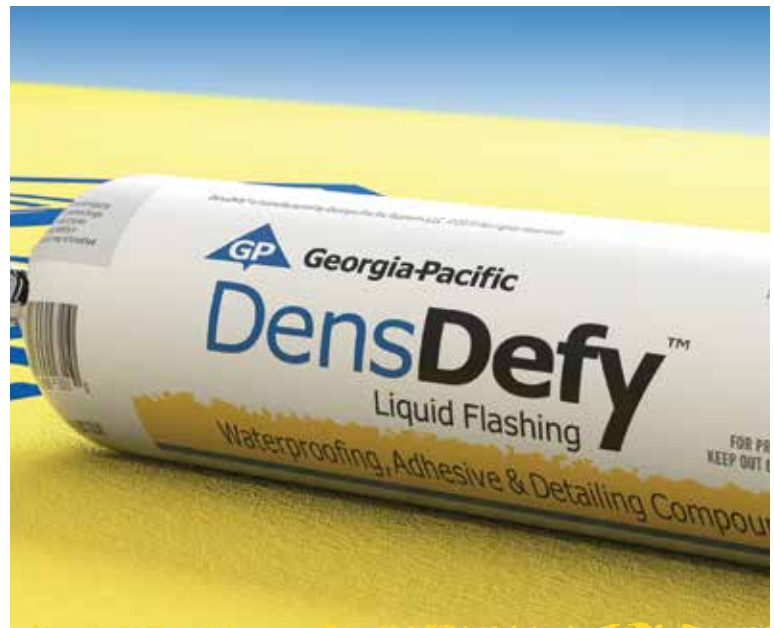


**GP Georgia-Pacific**  
**DensDefy™**  
 Liquid Flashing

DensDefy™ Liquid Flashing is a waterproofing, and detailing compound made with STP Technology which seals rough openings, penetrations, joints, sheathing fasteners and seams in new or existing wall assemblies. DensDefy™ Liquid Flashing creates an elastomeric flashing membrane which is highly durable. It eliminates the need for joint reinforcing tape reducing installation time.



### Advantages

The inclusion of DensDefy™ Liquid Flashing with DensElement® Barrier System delivers a complete, tested solution providing water-resistive and air barrier continuity.

- Ease of Use**
  - No priming is required, bonds to most building materials.
  - Easy to apply to complex geometries.
- Versatility**
  - Compatible with many sealants and waterproofing or air barrier components.
- Weather Resistant**
  - Provides a durable, weather-tight seal.
  - Bonds and cures in adverse weather conditions, on damp substrates, and tolerates rain immediately after application.
  - Will not tear or lose effectiveness when exposed to normal weather conditions during construction.
  - May be fully exposed to UV and normal weather conditions for up to 12 months.
  - Broad application temperature range including temperatures below 32°F.
- Limitations**
  - Not for use as a structural sealant.
  - Not for use as a through-wall flashing.
  - Not for use below grade or in locations designed to be continuously immersed in water.
  - Spans 1" maximum gap over backer rod.
  - Should not be used as a through wall flashing.
  - Not intended for permanent exposure, cover within 12 months.
  - Application temperature above 25°F (-4°C) and rising.

### Regulatory Compliance

#### VOC Compliance

Complies with California SCAQMD Rule 1168 (VOC limits for sealants and adhesives).

#### Safety Information

Always read full label and SDS for precautionary instructions before use. Use appropriate safety equipment and job-site controls during application and handling.

For additional product fire, safety and use information go to [buildgp.com](http://buildgp.com) or call 1-800-225-6119.

### General Technical Data

#### DensDefy™ Liquid Flashing

<b>FORM</b>	viscous paste, mild odor, gold color
<b>SPECIFIC GRAVITY</b>	1.39 - 1.48
<b>pH</b>	not applicable
<b>WT/GAL</b>	11.60 – 12.35 lbs
<b>TOTAL SOLIDS</b>	99%
<b>VOC CONTENT</b>	30 g/L maximum
<b>FREEZE POINT</b>	not applicable
<b>SHELF LIFE</b>	1 year in tightly sealed, unopened container

#### Cured Properties

<b>Hardness, Shore A</b>	40-50
<b>Tensile Strength</b>	>150 psi
<b>Elongation at Break</b>	>350% ASTM D412*
<b>Water Vapor Transmission</b>	12 perms
<b>Corrosive Properties</b>	Non-corrosive

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\* Elongation per ASTM D412 is not a requirement of the Air Barrier Association of America's (ABAA) Acceptance Criteria for Liquid Applied Membranes nor is it a requirement of the International Code Council Evaluation Service's Acceptance Criteria for Water-Resistive Coatings used as Water-Resistive Barriers over exterior Sheathing (ICC-ES AC212). Elongation is not a requirement of the AAMA 714 Specification for Liquid Applied Flashing used to create a Water-Resistive Seal Around Exterior Wall Openings. Specifications should be based upon performance test results like those required from the referenced organizations.

## Preparation

- Before applying the DensDefy™ Liquid Flashing, ensure the surface is clean, and free of dirt, debris, contaminants, and other bond inhibiting materials.
- Clean pressure-treated wood and other contaminated surfaces with an Isopropyl Alcohol wipe and allow to flash-off before applying DensDefy™ Liquid Flashing.
- 7 day cure for concrete and 3 day cure for mortar joints in masonry.
- If adhering to ICF's gently clean the surface with water.
- Protect people, vehicles, property, plants and all other surfaces not intended to receive DensDefy™ Liquid Flashing.
- Damaged sheathing should be removed and replaced.
- All surfaces should have a positive pitch to prevent ponding or pooling of water.
- Cap and seal roofing systems or protect top of walls from water intrusion before and after the air barrier system is installed. Water intrusion may interfere with bonding of air barrier waterproofing materials and/or detrimentally impact the performance of such materials.

## Surface & Air Temperatures

### Surface and Ambient Temperatures

- Temperatures between 32°F (0°C) and 110°F (43°C) are required for proper curing and drying of material to take place.

### Hot Weather Conditions/Precautions

- When air or surface temperatures exceed 95°F (35°C), apply DensDefy™ Liquid Flashing to the shady side of structure before daytime air and surface temperatures reach their peak. Hot surfaces may be cooled with a mist of fresh water. Keep containers closed and out of direct sunlight when not in use. Do not apply when substrate temperature exceeds 110°F (43°C).

### Cold Weather Conditions/Precautions

- Product may be applied to frost-free substrates at temperatures below 32°F (0°C). Product will not begin to cure until temperatures reach 32°F (0°C) and remain above freezing. Keeping material stored in a heated environment prior to use and misting applied material with warm, fresh water will accelerate curing in these conditions.

### Low Humidity Conditions/Precautions

- The process of curing may take longer when lower humidity levels occur. A light misting of fresh water over the treated surface will accelerate curing if necessary.

### Surfaces with Standing Water or Frost

- While DensDefy™ Liquid Flashing may be applied to damp surfaces and tolerates rain immediately after application, do not apply to surfaces with standing water or frost. Contact GP technical services at 1-800-225-6119 for guidance.

## Equipment

Reference DensElement® Barrier System Installation Guidelines for specific recommendations of appropriate equipment.

- Using a professional caulking gun apply DensDefy™ Liquid Flashing and spread with a spreading tool.
- Do not use soapy water or solvent to help with the tooling process or to slick the surface profile.

## Personal Protective Equipment

- **Eye/Face Protection:** Wear safety glasses with side shields (or goggles) and a face shield.
- **Skin Protection:** Hand protection – Wear appropriate chemical resistant gloves.
- **Other:** Wear appropriate chemical resistant clothing.

Refer to SDS for more information: [www.buildgp.com/denselement/resources/literature/](http://www.buildgp.com/denselement/resources/literature/).

## Storage & Handling

Store in a cool, dry place. Keep container tightly closed when not dispensing. Do not open container until preparation work has been completed. Do not alter or mix with other chemicals. When stored at or below 80°F (27°C) DensDefy™ Liquid Flashing has a shelf life of 12 months after the date of manufacture. This shelf life assumes upright storage of factory-sealed containers. Do not double stack pallets. Dispose of unused product and container in accordance with local, state and federal regulations.

## Application of DensDefy™ Liquid Flashing

Read "Preparation" section of this document and the SDS located at [www.buildgp.com/denselement/resources/literature/](http://www.buildgp.com/denselement/resources/literature/) before use.

### Dilution & Mixing

Apply as packaged. Do not dilute or alter, or use for applications other than specified. No mixing required.

### Typical Coverage Rates

Coverage varies based on surface texture and irregularities. DensDefy™ Liquid Flashing is sold in 20 oz sausages.

### DensElement® Barrier System DensDefy™ Liquid Flashing Application Chart\*

Container: 20 oz. "Sausage"

2 inch joint width coverage	
Minimum Mil Thickness	Coverage (linear feet)
16	85
22	62
28	48
2x4 framed opening coverage	
Minimum Mil Thickness	Coverage (linear feet)
16	25-30

\* Coverage shown is an estimate only. Actual coverage will vary based on experience level of applicator and other factors

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

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## Installation Instructions

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

#### Joints

1. Apply DensDefy™ Liquid Flashing over the DensElement® Sheathing joint in a zig-zag or ribbon pattern.
2. With a straight edge tool, spread evenly over the sheathing joint.
3. Apply at a rate to achieve a minimum thickness of 16 wet mils over the entire joint area, leaving no exposed sheathing. Cover a minimum of 1-in. on both sides of the joint.

#### Vertical Corners

1. Apply DensDefy™ Liquid Flashing over the inside and/or outside corner in a zig-zag or ribbon pattern.
2. With a straight edge tool, spread evenly over the sheathing corner.
3. Apply at a rate to achieve a minimum thickness of 16 wet mils over the corner area. Cover a minimum of 2-in. on both sides of the corner.

#### Fasteners

1. The fasteners should be spotted with DensDefy™ Liquid Flashing and wiped down with a straight edge tool leaving a minimum thickness of 16 wet mils over the entire fastener.

#### Rough Openings

1. Rasp any jagged or uneven DensElement® Sheathing edges and clean framing free of debris and dust or other bond inhibiting materials.  
Note: For treated lumber, clean with an Isopropyl alcohol wipe and allow to flash off prior to application of DensDefy™ Liquid Flashing.
2. Apply a bead of DensDefy™ Liquid Flashing into all inside corners of the opening.
3. Apply DensDefy™ Liquid Flashing in the opening sill, jamb and header in a zig-zag or ribbon pattern.
4. Apply DensDefy™ Liquid Flashing over the DensElement® Sheathing adjacent to the opening sill, jamb and header in a zig-zag or ribbon pattern.
5. Use a straight edge tool to spread the DensDefy™ Liquid Flashing to a pinhole and void free application achieving a minimum 16 wet mils.
6. Spread the DensDefy™ Liquid Flashing a minimum of 2" into the rough opening and a minimum 1" past the interior air seal of the window unit. Refer to the project details and specifications to determine window placement and minimum requirement for rough opening treatment.
7. Ensure a minimum 2" of DensDefy™ Liquid Flashing is applied onto the sheathing surface adjacent to the opening.

#### Pipe Penetrations

1. Mechanically secure penetrations.
2. If the gap between materials is over 1/4-in., install backer rod between penetration and DensElement® Sheathing to form a back dam regardless of size of penetration or opening.\*  
\* Only acceptable for non fire rated assemblies.
3. Apply a thick bead of DensDefy™ Liquid Flashing around the penetration.
4. Use a straight edge tool to feather and completely seal the joint around the penetration.

#### Material Transitions

1. If the gap between materials is over 1/4-in., fill the gap between the DensElement® Sheathing and adjacent materials with a backer rod.
2. If necessary, prime the adjacent material with primer per the material manufacturer's recommendations.

3. Apply DensDefy™ Liquid Flashing over the DensElement® Sheathing and adjacent material in a zig-zag or ribbon pattern.
4. Using straight edge tool, spread DensDefy™ Liquid Flashing over material transition joint.
5. Apply at a rate to achieve a minimum thickness of 16 wet mils. Ensure the flashing is applied a minimum of 2-in. on each substrate material surface.

#### Repair

After applying waterproofing or air barrier component, DensDefy™ Liquid Flashing may be used to remove cracks or voids to achieve a seamless, pinhole and void free coating.

#### Curing & Drying

At 70°F (21°C) and 50% relative humidity, product skins within 30–60 minutes and dries in 4–6 hours. DensDefy™ Liquid Flashing is moisture curing. Low temperatures and low relative humidity slow dry time. High temperatures and high relative humidity accelerates dry time.

#### Clean-up

Clean tools and equipment with mineral spirits or similar solvent immediately after use. Follow all safety precautions. Remove cured DensDefy™ Liquid Flashing mechanically using a sharp-edged tool.

#### Warranty

Visit [buildgp.com](http://buildgp.com) for warranty details.

#### Customer Care

Our sales and technical experts are available to assist. Call our GP Technical Hotline at 800-225-6119, or visit our website at [denselement.com](http://denselement.com).

#### Best Practices

**Roofing Systems:** Cap and seal roofing systems or protect top of walls from water intrusion before and after the air barrier system is installed. Water intrusion may interfere with bonding of air barrier waterproofing materials and/or detrimentally impact the performance of such materials. For best results, spread/tool DensDefy™ Liquid Flashing while still wet, within 2–3 minutes of gun application.

**Hot Weather Conditions/Precautions:** When air/surface temps exceed 95°F (35°C), apply product to the shady side of structure before daytime air and surface temps reach their peak. Hot surfaces may be cooled with a mist of fresh water. Keep containers closed and out of direct sunlight when not in use. Do not apply when temp exceeds 110°F (43°C).

**Cold Weather Conditions/Precautions:** May be applied to frost-free substrates at temps below 32°F (0°C). Product will not begin to cure until temps reach 32°F (0°C) and remain above freezing. Keeping sausages warm prior to application may make product easier to apply and spread.

**Low Humidity Conditions/Precautions:** Curing may take longer when lower humidity levels occur. A light misting of fresh water over the treated surface will accelerate curing, if necessary. DensDefy™ Liquid Flashing may be used to counter flash or gasket mechanically fastened building components.

\* Illustration portraying how to use DensDefy™ Liquid Flashing is available at [www.densdefy.com](http://www.densdefy.com) by downloading the DensDefy™ Installation Guidelines. To schedule field technical support, contact your DensDefy™ Liquid Flashing Technical Customer Care toll-free at 1-800-225-6119. Field visits by DensDefy™ Liquid Flashing personnel are for the purpose of making technical recommendations only. Georgia-Pacific is not responsible for providing job-site supervision or quality control. Proper application is the responsibility of the applicator.

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## DensDefy™ Liquid Flashing Product Test Results

### AAMA 714-19: Voluntary Specification for Liquid-Applied Flashing Used to Create a Water-Resistive Seal Around Exterior Walls in Openings in Buildings

Test	Method	Requirement	Result
Adhesive Strength to Substrate (lbf)	ASTM C794	≥ 5	Pass
Water penetration around Nails	ASTM D1970 Section 7.9	Shall Pass 31 mm (1.2 in) of Water	Pass
Accelerated Aging (lbf/in)	ASTM G154, UVA cycle 1 ASTM C794, Visual	≥ 5	Pass
Elevated Temperature (lbf/in) Level 3 = 176° F for 7 days	AAMA 711 ASTM C794 Level 3	≥ 5	Pass
Thermal Cycling (10 cycles)	AAMA 711 ASTM C794	≥ 5	Pass
Crack Bridging Ability Category II 10 Cycles	ASTM C1305/ AAMA 714 Section 5.6	Water holdout of 550 ml for 24 hrs.	Pass
Water Immersion (lbf)	AAMA 714, Section 5.7 ASTM C794	≥ 5	Pass
Damp Surfaces	ASTM C794	≥ 5	Pass
Moisture Vapor Permeance	ASTM E96 Procedure B	≥ 10	Pass
<b>Additional Testing For Energy Code (IECC) Compliance<sup>1</sup></b>			
*Air Leakage of Air Barrier Assemblies	ASTM E2357	0.04 cfm/ft <sup>2</sup> at 75 Pa	Exceeded IECC requirements with below code air infiltration rates of 0.01 cfm/ft <sup>2</sup> at 75 Pa
<b>Fire Testing</b>			
Surface Burning Characteristics	ASTM E84	Criteria for ICC and NFPA Class A Building Material: Flame Spread ≤ 25 Smoke Developed ≤ 450	Meets Class A Building Material Flame Spread: 15 Smoke Developed: 10
Surface Burning Characteristics of Building Materials and Assemblies (Canada)	CAN/ULC S102-10	N/A	Flame Spread Rating: 5 Smoke Developed Classification: 25

Testing was completed as required in AAMA 714-19:  
Voluntary Specification for Liquid Applied Flashing used to Create a Water-Resistive Seal around Exterior Wall Openings in Buildings.  
\*ABAA: Air Barrier Association of America Acceptance Criteria for Liquid Applied Membranes  
1. Meets ICC-ESR 3786

