

# DensDefy™

## Liquid Barrier

DensDefy™ Liquid Barrier is a fluid-applied Silyl Terminated Polymer (STP) water-resistive and air barrier applied by roller or with spray equipment, and when installed with DensDefy® accessory materials, can offer a complete water-resistive and air barrier system.

The robust, elastomeric membrane formed by DensDefy™ Liquid Barrier adheres to most common construction surfaces such as CMU, concrete, glass mat gypsum sheathing, OSB and plywood and is compatible with a wide range of commonly used construction sealants, coatings, membranes and flashings.



### Advantages

- Highly durable, monolithic, elastomeric water-resistive barrier.
- May be applied in temperatures as low as 25°F and cures in temperatures as low as 32°F.
- Can be applied in wet weather, on damp substrates, and tolerates rain immediately after application.
- Vapor permeable – allows damp surfaces to dry.
- Can be exposed to normal weathering conditions for up to 12 months.
- When combined with the DensElement Barrier System, a single-source limited warranty is available.

### Preparation

- Protect people, vehicles, property, plants and all other surfaces not intended to receive DensDefy™ Liquid Barrier. To ensure best results, apply to clean surfaces free of frost and contaminants. Chemical residues, surface coatings or films may adversely affect adhesion.  
**Note:** Treated lumber must be dry and may be solvent wiped with isopropyl alcohol to aid adhesion of DensDefy® products.
- Poured in place concrete must be allowed to cure a minimum of 7 days and be free of any curing compounds or form release agents before application.
- Mortar joints in CMU construction should be struck flush and allowed to cure a minimum of 3 days.
- Fill voids and holes in concrete or CMU with suitable non-shrink grout or mortar.
- Ensure substrate is sound and is undamaged.
- Repair any gouges, punctures or minor damage with DensDefy® Liquid Flashing.
- When applying over exterior sheathing, treat seams and joints with DensDefy® Liquid Flashing prior to application of DensDefy™ Liquid Barrier.

### General Technical Data

#### Physical Properties

<b>FORM</b>	Viscous liquid, yellow color, mild odor
<b>SPECIFIC GRAVITY</b>	1.26–1.33
<b>WT/GAL</b>	10.5–11.5 lbs.
<b>TOTAL SOLIDS</b>	Approx. 99%
<b>VOC CONTENT</b>	<30 g/L
<b>SHELF LIFE</b>	1 year in properly stored, unopened original packaging
<b>SURFACE SKIN / NON-WET TRANSFER TIME (HRS)</b>	2–4
<b>HARDNESS, SHORE A</b>	19–23
<b>TENSILE STRENGTH</b>	>90 psi
<b>ELONGATION AT BREAK</b>	>400% (ASTM D 412)
<b>TRANSFER FREE TIME</b>	< 1 hour (at room temperature and 50% relative humidity)
<b>WATER VAPOR TRANSMISSION</b>	10 Perms (ASTM E96 Method A) 14 Perms (ASTM E96 Method B)
<b>SURFACE BURNING CHARACTERISTICS</b>	Class A (ASTM E84) Flame Spread = 25 Smoke Developed = 10
<b>AIR PERMENANCE</b>	>400% (ASTM D 412)
<b>AIR PERMEANCE</b>	Pass (ASTM 2178) ≤ .02 L/(s.m <sup>2</sup> ) ≤ .0004 cfm/ft <sup>2</sup> >
<b>AIR LEAKAGE OF AIR BARRIER ASSEMBLIES</b>	Pass (ASTM E2357)
<b>WATER PENETRATION</b>	Pass (ASTM E331)
<b>AIR AND WATER RESISTIVE BARRIER</b>	Pass (AC212)

## Safety Information

Refer to SDS for instructions on safe handling and use of the product which can be found at [msds.gp.com](https://msds.gp.com).

## Surface & Air Temperatures

Note: Temperatures between 32°F (0°C) and 110°F (43°C) are required for proper curing and drying of DensDefy™ Liquid Barrier.

### Cold-Weather Conditions/Precautions

- Product may be applied to frost-free substrates at temperatures as low as 25°F (-4°C). Product will not begin to cure until temperatures reach 32°F (0°C) and remain above freezing. Storing product in a heated environment prior to use may help workability and curing in these conditions.

### Hot-Weather Conditions/Precautions

- When air or surface temperatures exceed 95°F (35°C), apply product to the shady side of structure before daytime air/surface temperatures reach their peak. Keep containers closed and out of direct sunlight when not in use. Do not apply when substrate temperature exceeds 110°F (43°C).

### Low Humidity Conditions/Precautions

- The process of curing may take longer when lower humidity levels occur.

## Application

Before use, read Preparation, Hazard Statements and Precautionary Statements which can be found at [msds.gp.com](https://msds.gp.com).

**DILUTION:** Do not dilute, alter, or use for applications other than specified.

**MIXING:** Using a low-speed drill and paddle, mix well from top to bottom and side-to-side for a minimum of 3 minutes before use. Avoid mixing air into the product.

**TYPICAL COVERAGE RATES:** Coverage rates will vary depending on surface porosity, moisture uptake, installer skill level and other factors. Actual rates must be determined through mock-up applications. Some gypsum sheathing products, OSB and CMU may require additional material and multiple passes to achieve the desired mil thickness and a pinhole void free application.

- Exterior Gypsum Panel: 450–550 sq.ft. per 5 gallon pail when applied at 14-18 wet mils
- OSB/Plywood: 250-350 sq.ft. per 5 gallon pail when applied at 18 wet mils
- CMU: 300–400 sq.ft. per 5 gallon pail when applied 14-18 wet mils total in multiple passes

## Application Instructions

1. Using a 1/4" or 3/8" nap lint free roller, apply the DensDefy™ Liquid Barrier to the exterior wall assembly using vertical strokes with a slight diagonal slant. Apply material so that a minimum 14 wet mils are achieved with no pinholes or voids. Porous substrates such as OSB and CMU may require additional material and multiple coats to achieve a pinhole/void-free application. Inspect surface after initial application and touch up as needed. Pinholes may not appear immediately.
2. Seal masonry ties and penetrations as work progresses.
3. Allow product to cure and dry. Wind, high temperatures and high humidity will accelerate drying. Low temperatures and low relative humidity will extend cure time. A light misting of fresh water over the treated surfaces may accelerate curing.
4. Inspect membrane for damage, voids or pinholes prior to covering. Repair any deep gouges, punctures or damaged areas with DensDefy® Liquid Flashing. Overlap repairs, penetration treatments, transitions, rigid flashing and other air barrier components to ensure positive drainage and continuity of the air- and water-resistive barrier.

## Limitations

- DensDefy™ Liquid Barrier is not for use as a liquid flashing membrane. Use DensDefy® Liquid Flashing instead.
- Not for use in place of through-wall flashing material.
- Do not install DensDefy™ Liquid Barrier System below grade or in locations that may be continuously immersed in water.
- DensDefy™ Liquid Barrier System is not intended for permanent exposure. It must be covered within 12 months.
- DensDefy™ Liquid Barrier System is not for use with insulated concrete forms (ICFs)
- Treated lumber must be dry and may be solvent wiped with isopropyl alcohol to aid adhesion of DensDefy® products.
- Avoid conditions that will create moisture in the air and condensation within the exterior walls. This is especially important during periods when the exterior and interior temperature differentials can create a condensation point within the exterior wall. The use of forced air heaters creates volumes of water which, when not properly vented, can condense on building materials. The use of heaters and any resulting damage is not the responsibility of Georgia-Pacific Building Products. Consult heater manufacturer for proper use and ventilation.

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- For cladding systems that require multiple layers of water-resistive barriers, the DensDefy™ Liquid Barrier System is intended to replace only the first layer over the wall substrate.
- Avoid the use of solvent-based cleaners, primers, adhesives or accessory products when using the DensDefy™ Liquid Barrier System.
- Exterior wall design details including, but not limited to, cladding attachments, control joints, material transition details, drainage mechanisms, flashing, sealants, and window and door integration must be properly installed per the project specifications and all applicable building code requirements.
- Roofing systems must be capped and sealed and top of walls protected from water intrusion both before and after DensDefy™ Liquid Barrier installation. Water intrusion may interfere with adhesion and/or detrimentally impact the performance of such materials.
- Georgia-Pacific Building Products does not warrant and is not responsible or liable for the performance of any cladding or cladding system that is attached or adhered to the DensDefy™ Liquid Barrier System. The compatibility of any cladding system is the responsibility of the cladding manufacturer or design authority.

## Cleanup

Clean tools and equipment with mineral spirits or similar solvent immediately after use and prior to material curing. Follow all safety precautions. Cured material must be removed mechanically.

## Curing & Drying

At 70°F (21°C) and 50% relative humidity, product skins in approximately 2 hours and cures in approximately 12 hours when applied at 14 mil thickness. DensDefy™ Liquid Barrier is moisture curing. Low temperatures and low relative humidity slow cure time. Wind, high temperatures and high humidity accelerate drying.

## Storage & Handling:

Store in cool, dry place. Do not open until prep work is completed. Keep tightly closed when not dispensing. When stored at or below 80°F (27°C), product has shelf life of 12 months after manufacture date, assuming upright storage of factory-sealed container. Do not double stack pallets. Dispose of in accordance with applicable laws and regulations.

## Limited Warranty

For complete warranty details, visit [buildgp.com/warranties](http://buildgp.com/warranties).

## Customer Care

For technical assistance, call 800-225-6119.