



LIQUIDARMOR™ – CM Flashing and Sealant

Product Information – Commercial – U.S.

1. PRODUCT NAME

LIQUIDARMOR™ -CM Flashing and Sealant

2. MANUFACTURER

The Dow Chemical Company
Dow Building Solutions
200 Larkin Center, 1605 Joseph Drive
Midland, MI 48674
1-866-583-BLUE (2583)
Fax 1-989-832-1465

3. PRODUCT DESCRIPTION

Basic Use

LIQUIDARMOR™ -CM Flashing and Sealant is an innovative, patented liquid flashing solution designed to provide commercial buildings advanced moisture and air sealing protection. An innovative alternative to flashing tape, the elastomeric spray forms a tight, seamless barrier along the rough openings of windows and doors while helping to significantly reduce labor time. The liquid flashing solution offers an excellent alternative sealant solution to conventional flashing and sealing products for installation of THERMAX™ or the Ultra Air Barrier Wall Systems.

LIQUIDARMOR™ -CM Flashing and Sealant covers and seals hard-to-reach gaps up to a quarter inch wide and offers a reliable replacement to peel and stick flashing tapes commonly used on board joints of commercial buildings. The versatile, water-based coating works on a wide range of surfaces, including foam boards, steel studs, concrete masonry units, tapes, wood buck, and wraps. With sprayable, aqueous technology, it facilitates a consistent application using commonly available airless paint sprayers.

The liquid flashing solution seals around screws, veneer anchors and penetrating fasteners, resulting in a durable and resilient barrier suited to withstand job site variations and long term building performance. Once the LIQUIDARMOR™ -CM sealant sets to the final elastomeric solid, the treated area is protected and helps provide superior air leakage and moisture control as part of a joint treatment with Dow's commercial wall assemblies.

Limitations

Surface and ambient temperatures should be 35°F and rising and below 120°F during application. LIQUIDARMOR™ -CM Flashing and Sealant tolerates rain shortly after installation. However, do not apply to surfaces with standing water or frost.

TABLE 1: LIQUID PROPERTIES

Form	Grey-blue, sprayable sealant
Volatile Organic Compounds (VOC)	2.3 wt%
Density	11.4 lbs./gal.
Total Solids	75%
Shelf Life	1.5 years

Application Environment

- 35–120°F
- One step (no mesh required)
- Tolerates freeze-thaw
- Tolerates heat-age
- Rain resistant

Third-Party Tested:

ASTM E331, "Water Penetration of Exterior Windows by Uniform Static Air Pressure Difference": Passed with no leakage after 2 hours at 6.24 psf as part of Dow's THERMAX™ Wall System and Ultra Air Barrier Wall system designs.

ASTM E2357, "Standard Test Method for Determining Air Leakage of Air Barrier Assemblies": Rated at 0.0810 and 0.0508 L/s-m². as part of Dow's THERMAX™ Wall System and Ultra Air Barrier Wall System designs, respectively.

4. TECHNICAL DATA

Applicable Standards

LIQUIDARMOR™ -CM Flashing and Sealant complies with the following standards listed in the codes:

- ASTM E331, "Water Penetration of Exterior Windows by Uniform Static Air Pressure Difference."
- ASTM E2357, "Standard Test Method for Determining Air Leakage of Air Barrier Assemblies."

Contact your Dow sales representative or local authorities for state/provincial and local building code requirements and related acceptances.

Physical Properties

LIQUIDARMOR™ -CM Flashing and Sealant exhibits typical properties and characteristics indicated in Table 1 when tested as represented.

TABLE 2: TYPICAL CURED PROPERTIES

Tensile Strength, ASTM D412	340 psi
Elongation at Break, ASTM D412	270%
Water Vapor Transmission, ASTM E96, Procedure B	4 perms
Accelerated Weathering AAMA714, Section 5.3	Passes
Nail Sealing Ability ASTM D1970/ AAMA714, Section 5.2	Passes
Elevated Temperature, AAMA 714, Section 5.4	Passes
Thermal Cycling/Freeze-Thaw, AAMA 714, Section 5.5	Passes

* Consult label and SDS carefully before use.

5. INSTALLATION

Preparation

- Read all safety information and conditions of use before applying product.
- To facilitate best results, apply to clean surfaces free of contaminants.
- Remove and replace damaged sheathing.
- Treat any gaps that are greater than 1/4" wide with acrylic caulk.

Equipment

- Recommended Airless Paint Sprayer: Titan Speedflow 1200 SF or Titan Impact 1140 or Graco GMAX II 5900 or Graco TexSpray Mark IV
 - Max GPM: 1.1
 - Max PSI: 3,300
 - Motor: 2.2 hp
- Recommended Spray Tip: TR2 tip 519/213 or Graco XHD325
 - Use 500s series for wider spray widths and 200s or 300s series for narrower gaps, such as joints, as a general guidance. Refer to sprayer manufacturer for specific sprayer and tip details. Other sprayer models matching the equipment throughput and pressure range can be used.

Application Instructions

- If necessary, just before spraying LIQUIDARMOR™ -CM Flashing and Sealant, treat any gaps that are greater than 1/4" wide with GREAT STUFF PRO™ Window & Door Insulating Foam Sealant or acrylic caulk.
- Allow 10 to 20 minutes for GREAT STUFF PRO™ Window & Door Insulating Foam Sealant or acrylic caulk to skin over, then spray LIQUIDARMOR™ -CM Flashing and Sealant (50 ±5 wet mils thick) at 3 ±1" wide on board joints. As window flashing, cover rough opening per flashing design details at 50 ±5 wet mils thick, and > 2" overlap on any sheathing surface at transitions.

- After spraying LIQUIDARMOR™ -CM Flashing and Sealant, ensure consistent film thickness of the coating and visually inspect for missed spots.
- If there are missed spots, a brush can be used to smooth the coating and fill any voids.
- Allow LIQUIDARMOR™ -CM Flashing and Sealant to "dry-to-touch." Depending on humidity, temperature, sun exposure and wind direction, minimum 1 to 4 hours or overnight may be needed.
- Insert the window per manufacturer's instructions.

6. SAFETY AND CONDITIONS OF USE

- As with any construction site, follow basic safety practices.
- Follow all spray equipment instructions and warnings.
- Read the label and Safety Data Sheet carefully before use
- It is recommended that spray applicators and those working in the spray area wear eye protection such as safety glasses with side shields or goggles.
- Contact with exposed skin may cause skin discoloration and dryness.
- Gloves are recommended for prolonged exposures.
- Ensure adequate ventilation during spray applications.

7. AVAILABILITY

LIQUIDARMOR™ -CM Flashing and Sealant is available in 5-gallon pails at select locations.

For more information, call 1-800-232-2436.

8. WARRANTY

When used per Dow's recommended installation, Dow hereby warrants that the product will be free of defects in material and perform to Dow's published physical property specifications at time of purchase so long

as product is within best-use date as stated on product label, and the product is applied per product literature. All recommendations or suggestions for use are made without guarantee. Dow recommends that customers inspect ambient and substrate conditions, and test product before use to determine content and suitability for their specific use. In no event shall Dow be liable for any other costs or damages, including labor costs.

LIMITATIONS

THESE WARRANTIES ARE IN LIEU OF ALL OTHER GUARANTEES AND WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND SHALL NOT BE EXTENDED OR ALTERED EXCEPT BY WRITTEN INSTRUMENT SIGNED BY DOW AND THE OWNER. THERE ARE NO WARRANTIES OR GUARANTEES THAT EXTEND BEYOND THE DESCRIPTION SET FORTH IN THESE WARRANTIES.

Dow does not warrant the compatibility of any other product (including but not limited to any roofing membrane or coatings) with the warranted products, and does not assume any liability for any incidental, consequential, exemplary, special or punitive damages, including (but not limited to) incremental heating, cooling or similar costs and any other harm to persons or property.

9. MAINTENANCE

Not applicable.

10. TECHNICAL SERVICES

Dow can provide technical information to help address questions when using LIQUIDARMOR™ -CM Flashing and Sealant. For technical assistance, call your local Dow Sales representative.

In the U.S.

The Dow Chemical Company
Dow Building Solutions
200 Larkin, 1605 Joseph Drive
Midland, MI 48674

Technical Information

Contact your local Dow
Sales representative

Sales Information

1 800 232 2436

dowbuildingsolutions.com

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Dow Polyurethane Foam Insulation and Sealants

CAUTION: When cured, these products are combustible and will burn if exposed to open flame or sparks from high-energy sources. Do not expose to temperatures above 240°F (116°C). For more information, consult MSDS, call Dow at 1-866-583-BLUE (2583) or contact your local building inspector. In an emergency, call 1-989-636-4400 in the U.S. or 1-519-339-3711 in Canada. When air sealing buildings, ensure that combustion appliances, such as furnaces, water heaters, wood burning stoves, gas stoves and gas dryers, are properly vented to the outside. See website: <http://www.epa.gov/iaq/homes/hip-ventilation.html>.

GREAT STUFF PRO™ sealant and adhesive products contain isocyanate and a flammable blowing agent. Read the label and Safety Data Sheet carefully before use. Eliminate all sources of ignition before use. Wear long sleeves, gloves and safety glasses or goggles. Provide adequate ventilation or wear proper respiratory protection. Contents under pressure.

Building and/or construction practices unrelated to building materials could greatly affect moisture and the potential for mold formation. No material supplier, including Dow, can give assurance that mold will not develop in any specific system.

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