

# **OUTSULATION<sup>®</sup> LCMD SYSTEMS 1 – 5<sup>™</sup>**



**DS172**

**An Exterior Wall Insulation and Finish System with Moisture Drainage**

## **Outsulation LCMD Systems 1-5 Application Instructions**

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I. General Installation Requirements

A. Project Conditions

1. Storage

- a. Maximum storage temperature shall not exceed 38 °C (100 °F). Minimum storage temperature shall not be less than 4 °C (40 °F) with the exception of the following products:
  - 1) Demandit® and Revyvite®: 7 °C (45 °F)
  - 2) Ameristone™, TerraNeo®, Limestone™, and and Reflectit™: 10 °C (50 °F)
  - 3) Custom Brick™ Finish: refer to Custom Brick Polymer Specification, DS151.

2. Application

- a. Application of wet materials shall not take place during inclement weather unless appropriate protection is provided.
- b. Protect materials from inclement weather until they are completely dry.
- c. Air and surface temperatures must be 4 °C (40 °F) or above at the time of Dryvit product application and must remain so for a minimum of 24 hours or until dry with the exception of the following products:
  - 1) Demandit® and Revyvite®: 7 °C (45 °F)
  - 2) Ameristone™, TerraNeo®, Limestone™, and and Reflectit™: 10 °C (50 °F)
  - 3) Custom Brick Finish: refer to Custom Brick Polymer Specification, DS151.
  - 4) These temperatures shall be maintained with adequate air ventilation and circulation for a minimum of 24 hours (48 hours for Ameristone, TerraNeo and Limestone) or until the products are completely dry. Cool, humid conditions may require longer drying times.

B. Inspection of Substrate

- 1. Acceptable substrates for application of the Dryvit Outsulation LCMD Systems 1-5 are listed in the Dryvit Outsulation LCMD Systems 1-5 Specification, DS171.
- 2. The substrate must be securely fastened per contract documents.
- 3. There shall be no planar irregularities greater than 6.4 mm (1/4 in) within any 1.2 m (4 ft) radius.
- 4. Wood based sheathings require a 3.2 mm (1/8 in) gap between adjacent sheets per the guidelines published by the APA.

C. Flashing at System Terminations

1. General

- a. Ensure that flashing is installed in accordance with applicable code requirements and the contract documents. As a minimum, opening preparation is required as shown in the Outsulation LCMD Systems 1-5 Installation Details, DS170.

2. Transition at Roof Lines

- a. Ensure the roof has positive drainage, i.e. all runoff shall be directed to the exterior and away from the structure.
- b. Roof flashing shall be installed in accordance with industry guidelines, manufacturer’s instructions and contract documents.
- c. Runoff diverters (i.e. kickouts, crickets and saddles) must be installed where required. Particular attention must be paid to the eaves/chimney intersections, sloped roof/wall intersections, scuppers and parapet caps. Refer to the Dryvit Outsulation LCMD Systems 1-5 Installation Details, DS170 and contract documents.
- d. Hold system a minimum of 203 mm (8 in) above flat roofs; 51 mm (2 in) above sloped roofs.

3. Openings

- a. Heads, jambs and sills of all openings shall be prepared with Dryvit Flashing Tape™ or other code approved flashing material selected by the design professional prior to window/door, mechanical equipment, or other component installation. Refer to the Dryvit Outsulation LCMD Systems 1-5 Installation Details, DS170.  
**NOTE: Sill piece shall extend to the inside face of wall and continue a minimum of 102 mm (4 in) up at the jambs.**
- b. Continuous flashing at heads of openings as indicated in contract documents.  
**NOTE: For windows or doors that do not have integral flashing, a field-applied flashing must be installed as required (by others). Refer to the Dryvit Outsulation LCMD Systems 1-5 Installation Details, DS170.**
- c. Individual windows that are ganged to make multiple units require the heads to be continuously flashed and the joints between the units to be fully sealed.

4. Decks and Patios
    - a. Wood decks shall be properly flashed prior to system application. See the Dryvit Outsulation LCMD Systems 1-5 Installation Details, DS170 for general information and guidance.
    - b. Verify that the system terminates above poured decks, patios, landings, etc. that are properly sloped and waterproofed to direct water away from the walls.
  5. Utilities
    - a. Provisions must be made to ensure that the system terminates properly at lighting fixtures, electrical outlets, hose bibs, dryer vents, etc. Refer to the Dryvit Outsulation LCMD Systems 1-5 Installation Details, DS170.
  6. Grade Level Terminations
    - a. Hold system a minimum of 203 mm (8 in) above finished grade.
- D. Sealants
1. Dryvit materials shall be completely dry prior to installation of sealant materials (typically 48 - 72 hours). Humid or cool conditions may require longer drying times.
  2. Sealants and sealant primers are manufactured and supplied by others. Refer to DS153 for a list of sealants that have been tested by the sealant manufacturer's and found to be compatible with Dryvit products.

**Notify the general contractor and/or architect and/or owner of all discrepancies. Do not proceed until all unsatisfactory conditions have been corrected.**

**II. Materials Required for Completing Installation of the Outsulation LCMD Systems 1-5**

- A. Materials Supplied by Dryvit Systems, Inc.
1. Flashing Tape™ and Flashing Tape Surface Conditioner™
  2. AP Adhesive™
  3. Drainage Strip™
  4. Track – optional
  5. Drainage Mat – when specified
  6. Genesis®, Genesis® DM, Genesis® DMS, Primus®, Primus® DM, Dryflex®
  7. NCB™
  8. Rapidry DM™ 35-50, Rapidry DM™ 50-75, RapidPatch™
  9. Standard Mesh, Standard Plus™ Mesh, Intermediate Mesh, Panzer® 15, Panzer® 20, Corner Mesh™, and Detail Mesh®
    - a. It shall be colored blue for product identification bearing the Dryvit logo.
  10. Dryvit Finishes
  11. Dryvit Coatings and Primers

**NOTE: Materials listed above are also listed in the Outsulation LCMD Systems 1-5 Specification, DS171. Typically the project specification will identify the materials necessary to complete application.**

- B. Additional Materials Supplied by Others
1. Portland Cement: Type I or II
  2. Clean Potable Water
  3. Expanded Polystyrene Insulation Board meeting DS131
  4. Mechanical Fasteners (washers and screws – Systems 1, 2 and 3) – when specified
  5. Dupont® Tyvek® Stucco Wrap – when specified
  6. Code approved water-resistive barrier
  7. Expanded Metal Lath (Systems 4 and 5) – when specified
  8. Flashing

**III. Mixing Instructions**

- A. General
1. No additives such as sand, aggregates, rapid binders, anti-freeze, accelerators, etc. shall be added to any Dryvit materials under any circumstances. **Such additives will adversely affect the performance of the material and void all warranties.**
- B. Adhesive and Base Coat
1. Primus or Genesis
    - a. Open the bucket with a utility knife or lid-off.
    - b. Due to shipping and storage, there may be some separation of materials. Prior to splitting the material and adding Portland cement, mix the material thoroughly. Use a "Twister" paddle or equivalent mixing blade powered by a 12.7 mm (1/2 in) drill, at 500 - 1200 rpm only. **NOTE: A minimum 7 amp drill works best for Portland cement based materials. CAUTION: Do not over-mix or use other types of mixing blades as air entrapment and product damage may occur and result in workability and performance problems.**

- c. Pour 1/2 of the freshly mixed material [approximately 13.5 kg (30 lbs)] into a clean plastic container.
  - d. Add 1/3 of a bag [approximately 13.5 kg (30 lbs)] of fresh, lump free Type I or II Portland cement. Either gray or white cement is acceptable. Add cement slowly and mix thoroughly. **Do not add large quantities of cement at one time.**
  - e. Clean potable water may be added to the mixture to adjust the workability.
    - 1) Primus
      - a) Add as little water as possible, in small increments, and only after the Portland cement is thoroughly mixed. **Do not over water as this will degrade the performance and promote efflorescence.**
      - b) Mix the Primus material with Portland cement thoroughly; then wait five (5) minutes and mix again to break the initial set. Retempering with a small amount of water is permissible provided the mixture has not set. The mixture has a pot life similar to other Portland cement plaster material. Mix only as much material as can be conveniently used during a work period.
    - 2) Genesis
      - a) Add 950 ml (1 qt) of water prior to adding Portland cement. Additional water may be added to adjust workability.
      - b) Mix the Genesis material with Portland cement thoroughly; then wait ten to fifteen (10-15) minutes and mix again to break the initial set. Retempering with a small amount of water is permissible provided the mixture has not set. The mixture has a pot life similar to other Portland cement plaster material. Mix only as much material as can be conveniently used during a work period.
2. Primus DM
- a. Pail Mixing
    - 1) One 23 kg (50 lb) bag of material will produce approximately 19 L (5 gal) of Primus DM mixture. Add 5.7 L (1.5 gal) of clean potable water into a clean plastic container.
    - 2) Add Primus DM slowly while mixing using a “Twister” paddle or equivalent mixing blade, powered by a 12.7 mm (1/2 in) drill, at 500 - 1200 rpm. **NOTE: A minimum 7 amp drill works best for Portland cement based materials.**
    - 3) Thoroughly mix until uniformly wetted, adjusting consistency with a small amount of water or Primus DM material.
    - 4) Allow the mixture to set a minimum of five (5) minutes then retemper adding a small amount of water if necessary. Material must be free of lumps before using.
  - b. Mortar Mixer
    - 1) Add 5.7 L (1.5 gal) of clean potable water for each 22.7 kg (50 lb) bag of Primus DM into a clean mortar mixer.
    - 2) Add the Primus DM while the mixer is running. Let mix three to five (3 - 5) minutes, shut mixer off for five (5) minutes, then run mixer for another two to three (2 - 3) minutes to break the set and add a small amount of water if necessary to adjust the workability. The pot life is one to three (1 - 3) hours depending on weather.
3. Genesis DM
- a. Pail Mixing
    - 1) One bag of Genesis DM will produce approximately 19 L (5 gal) of Genesis DM mixture. To a clean 19 L (5 gal) pail, add 5.7 - 6.6 L (6 - 7 qt) of clean potable water.
    - 2) Add the Genesis DM slowly while constantly mixing with a “Twister” paddle or equivalent mixing blade, powered by a 12.7 mm (1/2 in) drill, at 500 - 1200 rpm. **NOTE: A minimum 7 amp drill works best for Portland cement based materials.**
    - 3) Thoroughly mix until uniformly wetted, adjusting consistency with a small amount of water or Genesis DM.
    - 4) Let set for ten (10) minutes. Retemper adding a small amount of water if necessary. Material must be free of lumps before using.
  - b. Mortar Mixer
    - 1) Add 5.7 - 6.6 L (6 - 7 qt) of clean potable water for each 22.7 kg (50 lb.) bag of Genesis DM into a clean mortar mixer.
    - 2) Add the Genesis DM while the mixer is running. Let mix three to five (3 - 5) minutes, shut the mixer off for ten (10) minutes, then run mixer for another two to three (2 - 3) minutes to break the set adding a small amount of water if necessary to adjust workability. The pot life is one to one and one half (1 - 1 1/2) hours depending on weather.
4. Genesis DMS
- a. Sprayer
    - 1) Connect a source of clean, cool potable water to a spray machine suitable for EIFS applications.
    - 2) Regulate the water flow rate to provide the desirable mixing consistency of material. Material may thicken up upon leaving the mixing cylinder at a given water flow and loosen up after pumping. **Note: The consistency for application must be determined after pumping.**

- b. Pail Mixing
    - 1) One bag of Genesis DMS will produce approximately 19 L (5 gal) of Genesis DMS mixture. To a clean 19 L (5 gal) pail, add 6.6 - 8.5 L (7 - 9 qt) of clean, cool potable water.
    - 2) Add the Genesis DMS slowly while continuously mixing with a "Twister" paddle or equivalent mixing blade, powered by a 12.7 mm (1/2 in) drill, at 500 - 1200 rpm. **NOTE: A minimum 7 amp drill works best for Portland cement based materials.**
    - 3) Thoroughly mix until uniformly wetted, adjusting consistency with a small amount of water or Genesis DMS.
    - 4) Let set for five (5) minutes. Retemper adding a small amount of water if necessary. Material must be free of lumps before using.
  - c. Mortar Mixer
    - 1) Add 6.6 - 8.5 L (7 - 9 qt) of clean, cool potable water for each 22.7 kg (50 lb) bag of Genesis DMS into a clean mortar mixer.
    - 2) Add the Genesis DMS while the mixer is running. Let mix three to five (3 - 5) minutes, shut the mixer off for five (5) minutes, then run mixer for another two to three (2 - 3) minutes. Retemper adding a small amount of water if necessary. Material must be free of lumps before using. The pot life is one to two (1 - 2) hours depending on weather.
5. Rapidry DM 35-50
- a. Pail Mixing
    - 1) One 22.7 kg (50 lb) bag of Rapidry DM 35-50 will produce approximately 19 L (5 gal) of Rapidry DM 35-50 mixture. To a clean Dryvit 19 L (5 gal) pail, add 6.1 L (6.5 qt) of clean potable water. As an alternative, on the inside of the Dryvit 19 L (5 gal) pail, draw a horizontal line which measures 113 mm (4 7/16 in) from the base of the pail and fill with water.
    - 2) Add the Rapidry DM 35-50 slowly while mixing with a "Twister" paddle or equivalent mixing blade, powered by a 12.7 mm (1/2 in) drill, at 500 - 1200 rpm. **NOTE: A minimum 7 amp drill works best for Portland cement based materials.**
    - 3) Thoroughly mix until uniformly wetted, adjusting consistency with a small amount of water or Rapidry DM 35-50 material. Material must be free of lumps before using.
  - b. Mortar Mixer
    - 1) Add 6.1 L (6.5 qt) of clean potable water for each 22.7 kg (50 lb) bag of Rapidry DM 35-50 into a clean mortar mixer.
    - 2) Add the Rapidry DM 35-50 while the mixer is running. Mix for three to five (3 to 5) minutes adjusting consistency with a small amount of water or Rapidry DM 35-50. Material must be free of lumps before using. The pot life is approximately thirty (30) minutes depending on temperature.
6. Rapidry DM 50-75
- a. Pail Mixing
    - 1) One 20.4 (45 lb) bag of Rapidry DM 50-75 will produce approximately 19 L (5 gal) of Rapidry DM 50-75 mixture. To a clean Dryvit 19 L (5 gal) pail, add 5.2 L (5.5 qt) of clean potable water. As an alternative, on the inside of the Dryvit 19 L (5 gal) pail, draw a horizontal line which measures 97 mm (3 13/16 in) from the base of the pail and fill with water.
    - 2) Add the Rapidry DM 50-75 slowly while mixing with a "Twister" paddle or equivalent mixing blade, powered by a 12.7 mm (1/2 in) drill, at 500 - 1200 rpm. **NOTE: A minimum 7 amp drill works best for Portland cement based materials.**
    - 3) Thoroughly mix until uniformly wetted, adjusting consistency with a small amount of water or Rapidry DM 50-75 material.
    - 4) Let set for five (5) minutes. Retemper adding a small amount of water if necessary. Material must be free of lumps before using.
  - b. Mortar Mixer
    - 1) Add 5.2 L (5.5 qt) of clean potable water for each 20.4 kg (45 lb) bag of Rapidry DM 50-75 into a clean mortar mixer.
    - 2) Add the Rapidry DM 50-75 while the mixer is running. Mix for three to five (3 - 5) minutes, shut the mixer off for five (5) minutes, then run mixer for another two to three (2 - 3) minutes to break the set adjusting consistency with a small amount of water or Rapidry DM 50-75. The pot life is approximately thirty (30) minutes depending on temperature.
- C. Base Coat only
- 1. NCB
    - a. Open the bucket with a utility knife or lid-off.
    - b. Mix NCB to a smooth, homogeneous consistency with a "Twister" paddle or equivalent mixing blade, powered by a 12.7 mm (1/2 in) drill, at 450 - 500 rpm. A small amount of clean potable water may be added to adjust workability.
  - 2. Dryflex
    - a. Open the bucket with a utility knife or lid-off.

- b. Due to shipping and storage, there may be some separation of materials. Prior to splitting the material and adding Portland cement, mix the material thoroughly. Use a “Twister” paddle or equivalent mixing blade, powered by a 12.7 mm (1/2 in) drill, at 500 - 1200 rpm. **NOTE: A minimum 7 amp drill works best for Portland cement based materials. CAUTION: Do not over-mix or use other types of mixing blades as air entrapment and product damage may occur and result in workability and performance problems.**
- c. Pour 1/2 of the freshly mixed material [approximately 10.21 kg (22.5 lbs)] into a clean plastic container.
- d. Add 1/4 of a bag [approximately 10.21 kg (22.5 lbs)] of fresh, lump free Type I or II Portland cement. Either gray or white cement is acceptable. Add cement slowly and mix thoroughly. **Do not add large quantities of cement at one time.**
- e. Clean potable water may be added to the mixture to adjust the workability. Add as little water as possible, in small increments, and only after the Portland cement is thoroughly mixed. **Do not over-water as this will degrade the performance of the Outsulation LCMD System and promote efflorescence.**  
 NOTE: It is advisable to mix the Dryflex material with Portland cement thoroughly; then wait five (5) minutes and mix again to break the initial set. Retempering with a small amount of water is permissible provided the mixture has not set. The mixture has a pot life similar to any Portland cement material. Mix only as much material as can be conveniently used during a work period.

D. Primers

- 1. Color Prime™, Color Prime W™, Primer with Sand™, and Weatherprime®
  - a. Mix material with a “Twister” paddle or equivalent mixing blade, powered by a 12.7 mm (1/2 in) drill, at 450 - 500 rpm to a homogeneous consistency.

E. Finish

- 1. Quarzputz®, Quarzputz E, Sandblast®, Freestyle®, Sandpebble®, Sandpebble E, Sandpebble Fine, Sandpebble Fine E, Mojave E™, Weatherlastic® finishes, and DPR FM™ finishes.
  - a. Thoroughly mix the factory-prepared Dryvit finish with a “Twister” paddle or equivalent mixing blade powered by a 12.7 mm (1/2 in) drill, at 450 - 500 rpm, until a uniform, homogeneous consistency is attained. A small amount of clean potable water may be added to adjust workability. Always add the same amount of water to each pail within a given lot to avoid color variation.

**NOTE: If using a tint pack to color finish, please refer to Tint Pack Mixing Instructions, DS750.**

F. Specialty Finishes

- 1. Ameristone
  - a. Mix Ameristone for approximately one (1) minute to ensure uniformity using a “Twister” paddle or equivalent mixing blade powered by a 12.7 mm (1/2 in) drill, at 450 - 500 rpm, just prior to application. **DO NOT OVERMIX.**
  - b. Mix all pails for the same amount of time.
  - c. If clean potable water is added as described in DS142 for various application techniques, the same amount must be added to each pail.
- 2. Stone Mist®
  - a. Mix Stone Mist for one (1) minute to ensure uniformity using a “Twister” paddle or equivalent mixing blade, powered by a 12.7 mm (1/2 in) drill, 450 - 500 rpm, just prior to application. **DO NOT OVERMIX.**
- 3. TerraNeo
  - a. Mix TerraNeo for one (1) minute just prior to application, to ensure uniformity using a “Twister” paddle or equivalent mixing blade, powered by a 12.7 mm (1/2 in) drill, at 450 - 500 rpm. **DO NOT OVERMIX.**
- 4. Limestone
  - a. Mix Limestone with a “Twister” paddle or equivalent mixing blade, powered by a 12.7 mm (1/2 in) drill, at 450 - 500 rpm until a uniform workable consistency is attained.  
**NOTE: If using a tint pack to color finish, please refer to Tint Pack Mixing Instructions, DS750.**
- 5. Custom Brick Finishes
  - a. For Custom Brick finishes, refer to Dryvit Custom Brick Application Instructions, DS154, for complete mixing instructions.  
**NOTE: If using a tint pack to color finish, please refer to Tint Pack Mixing Instructions, DS750.**
- 6. Reflectit
  - a. Gently mix, stir, or box Reflectit to a smooth, homogeneous consistency. Refer to Reflectit Spray Application Instructions, DS124 for complete mixing instructions.

G. Coatings and Sealers

- 1. Demandit, Revyvit, Weathercoat™, and Weatherlastic Smooth
  - a. Mix material with a “Twister” paddle or equivalent mixing blade, powered by a 12.7 mm (1/2 in) drill, at 450 - 500 rpm to a homogeneous consistency.
- 2. Tuscan Glaze™
  - a. Mix Tuscan Glaze with a “Twister” paddle or equivalent mixing blade, powered by a 12.7 mm (1/2 in) drill, at 450 - 500 rpm to a homogeneous consistency. As an alternate, boxing of buckets is acceptable.

3. SealClear™
  - a. Stir material thoroughly before using and stir often during the application process. As an alternate, boxing of buckets is acceptable.

#### IV. Water-Resistive Barrier Application

- A. A code approved water-resistive barrier shall be installed horizontally overlapping the course below in a weatherboard fashion in accordance with the manufacturer's installation instructions. The minimum overlap shall not be less than dictated by the applicable building code.
- B. Terminations at windows, doors and other openings must be properly lapped and flashed as shown in the Dryvit Outsulation LCMD Systems 1-5 Installation Details, DS170.

#### V. Rough Opening Preparation

- A. Dryvit Flashing Tape™ option

**CAUTION: The Dryvit Flashing Tape and Surface Conditioner™ must be handled properly. Refer to the Material Safety Data Sheets for proper handling, storage, health and environmental considerations.**

**NOTE: When Dryvit Flashing Tape is specified for rough opening preparation the water-resistive barrier must be installed prior to preparing the opening (see Section IV).**

**NOTE: Coordinate the Dryvit Flashing Tape application with the insulation board installation. Apply only enough Dryvit Flashing Tape that can be covered with the insulation board in the same work period.**

1. Dryvit Flashing Tape must be installed to provide a continuous barrier from the water-resistive barrier/sheathing substrate onto the framing edges at discontinuities and terminations such as openings, expansion joints, tops of parapets, etc. Refer to Dryvit Outsulation LCMD Systems 1-5 Installation Details, DS170.
2. Surface Preparation
  - a. Apply only when air and surface temperatures are above 4 °C (40 °F).
  - b. The surface to receive the Dryvit Flashing Tape must be clean, dry, smooth and free of any condition that will hinder adhesion.
  - c. Clean loose dust or dirt from the surface by wiping with a clean, dry cloth or brush.
3. Dryvit Flashing Tape Surface Conditioner Application
  - a. Pour the desired amount of surface conditioner into a clean container to prevent contamination.
  - b. Apply to the surfaces, which are to receive the Dryvit Flashing Tape, using a brush or roller. Sufficient surface conditioner should be applied to condition the surface to a dust free state suitable for the application of the Dryvit Flashing Tape. It should not be applied so heavily that it puddles or runs. Application of excess material will not improve adhesion but will extend the drying time.
  - c. Allow to dry until the surface is slightly tacky. Low temperatures and high humidity conditions may require longer drying times. Conditioning should be limited to areas that can be covered with Dryvit Flashing Tape within the same day.
4. Dryvit Flashing Tape Application
  - a. General
    - 1) Cut the Dryvit Flashing Tape to the appropriate length. Peel the release paper to expose the rubberized asphalt adhesive and align the tape into position before touching the wall.
    - 2) Position the tape on the wall face so that it covers the water-resistive barrier 51 mm (2 in) and the remainder is turned into the opening.
    - 3) Move along the opening being careful to place the tape as evenly as possible and avoiding fish-mouths along the edges. If wrinkles develop, cut out the affected area and replace.
    - 4) Apply pressure to the tape so that it is firmly in contact with the wall surface. Press the tape into place with a hand roller as soon as possible to ensure continuous and intimate contact with the surface.
    - 5) End laps that occur must maintain a minimum overlap of 51 mm (2 in).
    - 6) Apply Dryvit Flashing Tape so that it completely covers the stud/track and extends to the interior face of the opening. Additional strips of Dryvit Flashing Tape may be needed.
    - 7) Cold weather application may require the use of a heat gun to warm the wall surface in order to obtain good initial adhesion.
  - b. Sill/jamb intersections and similar conditions
    - 1) Apply the Dryvit Flashing Tape as shown in the detail below - Figure 1.
    - 2) Apply sill piece first, then apply the corner splice piece. The jamb piece is applied next, lapping over the splice piece.

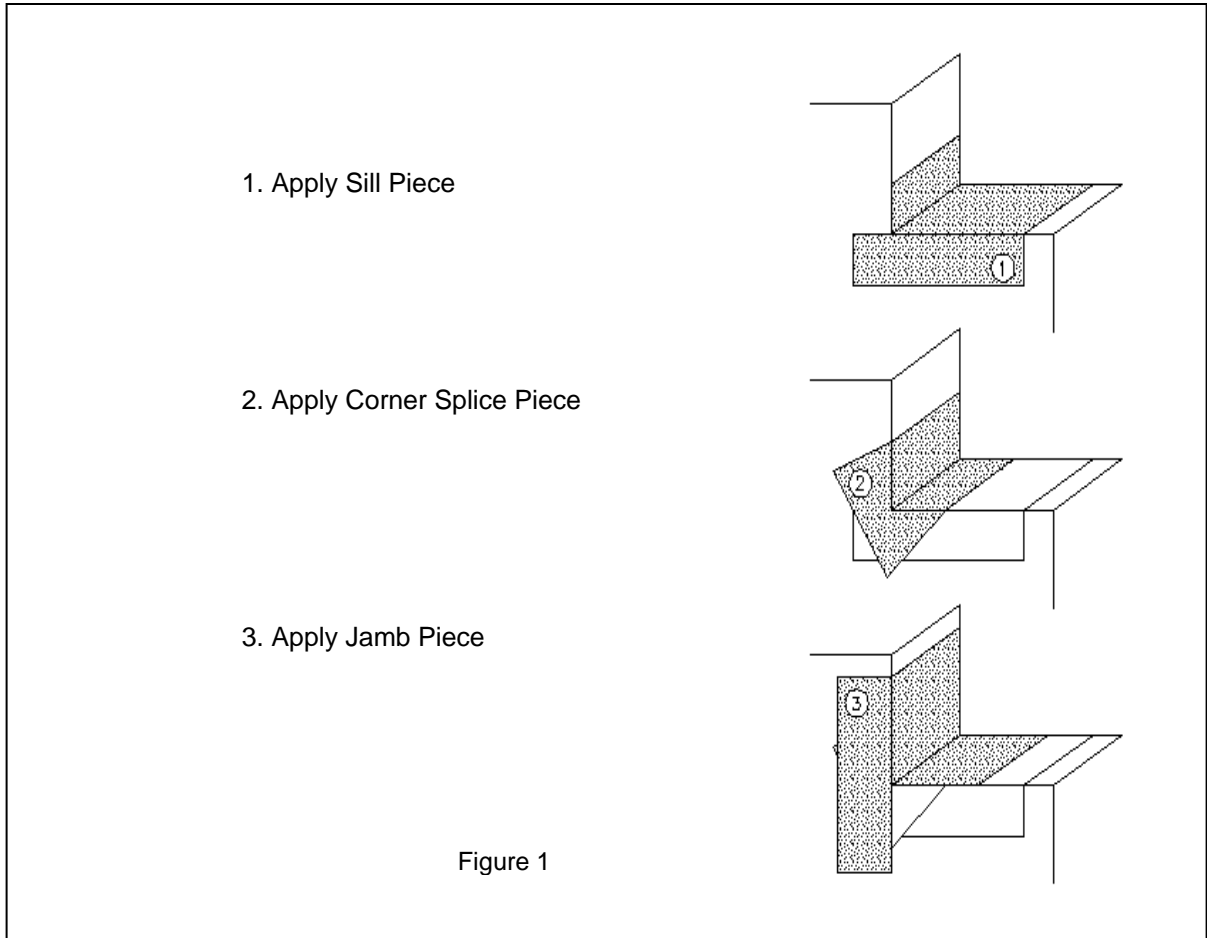


Figure 1

- c. Head/jamb intersections
  - 1) The jamb pieces are applied first, followed by the corner splice pieces. The head piece is applied last.
  - 2) Lap additional pieces of Dryvit Flashing Tape as necessary to cover the returns to the inside edge of the stud or track.

**VI. Accessories and Drainage Options**

**A. Accessories**

- 1. Installation of the Dryvit Drainage Strip or Drainage Track
  - a. Dryvit Drainage Strip (Optional - not required when Drainage Track is specified)
    - 1) Dryvit Drainage Strip shall be used at the base of the walls and shall be installed at the heads of all penetrations and at horizontal expansion/control joints as shown in Outsulation LCMD Systems 1-5 Installation Details, DS170.
    - 2) Using a chalk line, strike a level line at the base of the wall, head of opening or expansion/control joint to use as reference in applying the Dryvit Drainage Strip.
    - 3) Position the Dryvit Drainage Strip along the chalk line and staple at 305 mm (12 in) on center over the water-resistive barrier.
  - b. Dryvit Drainage Track (Optional - not required when Drainage Strip is specified)
    - 1) UV treated PVC perforated "J" channel with weep holes, complying with ASTM D 1784 and ASTM C 1063. Shall be one of the following:
      - a) Starter Trac STWP - without drip edge by Plastic Components, Inc.
      - b) Starter Trac STDE - with drip edge by Plastic Components, Inc.
      - c) Universal Starter Track by Wind-lock Corporation
      - d) Sloped Starter Strip with Drip by Vinyl Corp.

- 2) Dryvit Drainage Track may be used at the base of the wall and heads of openings. **NOTE: If project is defined as noncombustible, Drainage Track is limited to the base of the wall at finished grade level only.**
  - 3) Fold back the water-resistive barrier at the termination where the Dryvit Drainage Track will be installed
  - 4) Using a chalk line, strike a level line at the base of the wall that coincides with either the top or bottom of the nailing flange.
  - 5) Install the Dryvit Drainage Track by applying a continuous bead of Dryvit's AP Adhesive™ on the wall side of the track's nailing flange.
  - 6) Position the track along the chalk line and press firmly against the substrate to ensure firm and continuous contact between the adhesive and the wall surface. **NOTE: Do not overlap tracks, they shall be butted tightly.**
  - 7) Secure the track to the wall using corrosion resistant fasteners attached into the underlying framing members.
  - 8) Fold the water-resistive barrier over the flange of the Dryvit Drainage Track in a weather board fashion.
- B. Mechanical Fasteners for Securing Insulation Board (Systems 1, 2, 3)
1. Washer: A 51 mm (2 in) diameter polypropylene plastic plate with a recessed chamber and key openings for base coat penetration. The following washers are acceptable:
    - a. Wind-lock Wind-Devil 2 plates
    - b. TW Buildex Gridmate PB and Grid-Master washers
  2. Fasteners
    - a. Wood and Light Gauge Metal (20-26 ga) substrates
      - 1) Shall be minimum No. 6 s-point bugle head corrosion resistant screws
      - 2) The screws shall be of sufficient length to penetrate the substrates a minimum of 19 mm (3/4 in), and metal a minimum of 9.5 mm (3/8 in).
    - b. Light Gauge Steel Framing (16-20 ga)
      - 1) Shall be minimum No. 6 self drilling bugle head corrosion resistant screws.
      - 2) The screws shall be of sufficient length to penetrate the steel framing a minimum of 9.5 mm (3/8 in).
    - c. Brick, Block and Concrete
      - 1) Anchors shall be a minimum 4.8 mm (3/16 in) diameter and corrosion resistant.
      - 2) Anchors shall be of sufficient length to penetrate the substrate a minimum of 25 mm (1 in). Pre-drilling a pilot hole 12.7 mm (1/2 in) deeper than the anchor embedment is necessary.
- C. Drainage Options
1. Outsulation LCMD System 1 - Dryvit Drainage Mat
    - a. Prior to applying the Dryvit Drainage Mat ensure that the water-resistive barrier complies with the code and has been installed in accordance with the manufacturer's installation instructions.
    - b. The Dryvit Drainage Mat is available in rolls 76.2 m (250 ft) long by 991 mm (39 in) wide and is colored blue for product identification. Ensure that the material is undamaged and clearly labeled with the Dryvit name.
    - c. **Install the Drainage Mat over the water-resistive barrier with the corrugated "V" pattern oriented vertically. The "V" pattern runs parallel with the length of the roll.**
    - d. Using a sharp utility knife or scissors, cut the mat to a workable length and position vertically on the wall. **NOTE: Install the mat so that it extends 25 mm (1 in) below the bottom edge of the sheathing substrate along the base of horizontal terminations.**
    - e. Fasten in place using 9.5 - 12.7 mm (3/8-1/2 in) corrosion resistant staples or roofing nails spaced 305 mm (12 in) vertically by 406 mm (16 in) horizontally.
    - f. To minimize bulging on the wall, install the Drainage Mat with slight tension [approximately 4.5 kg (10 lbs)] as it is being fastened. The mat should be extended approximately 102 mm (4 in) for every 3.0 m (10 ft) of length. This will ensure that the mat will lay flat and minimize bulging.
    - g. Continue until the entire wall being worked is covered. Adjacent pieces are abutted and cut along each corner. Do not lap the pieces or try to fold mat around a corner.
    - h. Only apply enough mat that can be covered with EPS insulation board during the same day or work period.
  2. Outsulation LCMD System 2 - Tyvek StuccoWrap
    - a. Using a sharp utility knife or scissors, cut the StuccoWrap to a workable length and position horizontally on the wall so that the built in wrinkles run up and down (vertically) for drainage. **NOTE: Extend the StuccoWrap so that it extends 25 mm (1 in) below the bottom edge of the sheathing substrate along the base of horizontal terminations.**

- b. Ensure that the StuccoWrap is installed over the sheathing in accordance with the manufacturer's instructions. Verify that the upper courses are properly lapped over the lower courses.
  - c. Verify that terminations at windows, doors, and other openings are properly lapped and flashed as shown in the Dryvit Outsulation LCMD Systems 1-5 Installation Details, DS170 and Dupont Tyvek Installation Instructions.
  - d. The Dryvit Drainage Strip is required at terminations along the base of the System when StuccoWrap is used without the Drainage Track.
3. Outsulation LCMD System 3 - Grooved Insulation Board
    - a. Insulation board is secured over the water-resistive barrier with acceptable mechanical fasteners (see section VI.B.1). Mechanical fasteners consist of a polypropylene washer used in conjunction with a corrosion resistant fastener.
  4. Outsulation LCMD System 4 - Galvanized Furred Diamond Mesh Metal Lath

**NOTE: Not recommended for use within 30.5 m (100 ft) of ocean, coastlines, or other corrosive environments.**

    - a. 2.5 lb/yd<sup>2</sup> or 3.4 lb/yd<sup>2</sup> is acceptable.
    - b. Secure the galvanized metal lath through the weather resistive barrier and into the framing or nailable substrate with minimum No. 6 – corrosive resistant screws and minimum 4.8 mm (3/16 in) corrosive resistant metal washers in accordance with ASTM C 1063. Screws shall be spaced at a minimum of 152 mm (6 in) on center along the perimeter and 254 mm (10 in) on center along each framing member. **NOTE: Butt seams of metal lath and wire tie where edges are not securely attached to the substrate framing.**
  5. Outsulation LCMD System 5: utilizes Ultra-Lath as the drainage medium.
    - a. Shall be manufactured by Plastic Components, Inc.
    - b. Secure the Ultra-Lath through the weather resistive barrier and into the framing with Wind-lock™ ULP 302 plates and corrosion resistant screws. Screws shall be spaced a minimum of 203 mm (8 in) on center along the perimeter and along each framing member. **NOTE: Butt seams of Ultra-Lath and wire tie where edges are not securely attached to the substrate framing. Supplemental fasteners may be necessary in order to ensure the lath remains flat against the wall.**

## VII. Installation of Insulation Board

### A. Inspection of Insulation Board

1. Insulation board shipped in a clear polyethylene bag bearing the Dryvit name. The lot number of the insulation shall be visible on the outside of the bag. Insulation board shall be obtained from Dryvit Systems, Inc. or its authorized distributors, and made exclusively by manufacturers licensed by Dryvit Systems, Inc.
2. One edge of each board shall bear the words Dryvit, the plant identification number of the block molder, the appropriate model code report number, and the name of the third party quality control agency with corresponding number. In addition, one board in each bag shall bear the same markings on each face.
3. The insulation board shall measure maximum .61 m (2 ft) by 1.2 m (4 ft).
4. Insulation board meets the following tolerances:
  - a. Length: Plus or minus 1.6 mm (1/16 in)
  - b. Width: Plus or minus 1.6 mm (1/16 in)
  - c. Thickness: Plus or minus 1.6 mm (1/16 in). Minimum thickness shall be 25 mm (1 in).
  - d. Squareness: Shall not deviate from square by more than 0.8 mm (1/32 in) in 305 mm (12 in) of total length and width.
  - e. Edge Trueness: Shall not deviate more than 0.8 mm (1/32 in) in 305 mm (12 in).
  - f. Face Flatness: Shall not exhibit any bowing of more than 0.8 mm (1/32 in) in total length.

**WARNING: Any Insulation Board not meeting the above requirements should be rejected and not installed.**

### B. Preparation at Terminations

1. Wrapping (also referred to as back wrapping)
  - a. When Drainage Mat (System 1) is used as the drainage medium: Using tape, mask off the Drainage Mat that extends below the system to keep it free of base coat material (this will be trimmed off after system installation).
  - b. Apply a strip of Dryvit Detail Mesh over the Drainage Mat or water-resistive barrier along the horizontal terminations and staple to the substrate using corrosion resistant staples. Fasten at approximately 305 mm (12 in) on center into the substrate to maintain position. Position the mesh so that a minimum of 64 mm (2 1/2 in) extends onto the face of the insulation board.

- c. Attach Detail Mesh around the perimeter of all openings, penetrations, and other system terminations in the same manner.
2. Drainage Track (Optional)
  - a. Drainage Track may be used in lieu of back wrapping along the base of the walls (**finished grade only**). When used, the Tyvek StuccoWrap, or water-resistive barrier and Drainage Mat are installed so that they lap into the track. The back edge of the EPS insulation shall be notched to accommodate the added thickness.
- C. Mechanical Fastener Attachment (Systems 1, 2, 3)
  1. Begin installation of the insulation board from a permanent or temporary support.  
**NOTE: If the vinyl drainage track is used along base of walls (finished grade only), the insulation board is installed so that the bottom edge slips inside the track.**
  2. Beginning at the base of the wall use a 305 mm (12 in) by 1.2 m (4 ft) piece of insulation board as a starter row to minimize insulation board joints coinciding with sheathing board joints. **NOTE: The insulation board joints shall be offset from the sheathing joints a minimum of 203 mm (8 in).** Install the insulation boards with their long edges oriented horizontally.
  3. Secure the insulation board to the framing or structural substrate with the appropriate fastener and washer (see Section VI.B).
  4. Refer to the Dryvit Outsulation LCMD Systems 1-5 Installation Details, DS170, for proper fastening pattern. Install fasteners so that the face of the washer is flush or recessed a maximum of 1.6 mm (1/16 in) below the surface of the insulation board causing a slight dimple at each fastener location.
  5. Install subsequent rows of insulation board in a running bond pattern with vertical joints staggered. A 406 mm (16 in) offset is suggested to coincide with the repeating pattern of the fasteners.
  6. With factory edges exposed, stagger vertical joints at inside and outside corners. Make sure corners are straight and plumb. Apply fasteners spaced every 305 mm (12 in) along inside and outside corners and along system terminations.
- D. Adhesive Attachment (Systems 4, 5)
  1. Mix the adhesive as described in Section III.B. **WARNING: Do not apply Dryvit materials in the rain.**
  2. Begin installation of the insulation board from a permanent or temporary support.  
**NOTE: If the vinyl drainage track is used along base of walls (finished grade only), the insulation board is installed so that the bottom edge slips inside the track.**
  3. Beginning at the base of the wall, use a 305 mm (12 in) by 1.2 m (4 ft) piece of insulation board as a starter row to minimize insulation board joints coinciding with sheathing joints or metal lath joints. **NOTE: The insulation board joints shall be offset from the sheathing joints a minimum of 203 mm (8 in).** Install the insulation boards with their long dimension oriented horizontally.
    - a. Butter the edge of the insulation board at all terminations with adhesive in order to properly embed the previously installed Detail Mesh used for back wrapping. Back wrapping is necessary to provide the proper surface for application of sealant. **NOTE: The application of the adhesive mixture to the edge of the insulation board is only done when wrapping with the Detail Mesh.**
  4. With a notched trowel, 9.5 mm (3/8 in) wide, 12.7 mm (1/2 in) deep notches spaced 38 mm (1 1/2 in) apart, apply the adhesive mixture to the backside of the insulation board. Holding the trowel at a 45° angle, apply firm pressure to the insulation board in order to scrape the excess adhesive from between the adhesive ribbons. **NOTE: Apply the adhesive so that the ribbons run vertically (up and down) when the insulation board is placed on the wall to allow for drainage.**
  5. Place in position on the wall and apply firm pressure over the entire surface of the insulation board to ensure uniform contact and high initial grab.
  6. Using a margin trowel, clean the insulation board edges of any adhesive mixture. Ensure that the insulation joints are abutted tightly and the surface is level and flush with adjacent boards.
  7. Install subsequent rows of insulation in a running bond pattern with vertical joints staggered.
  8. With factory edges exposed, stagger vertical joints at inside and outside corners. Make sure corners are straight and plumb.
- E. Windows, Doors, Mechanical Equipment and all Wall Penetrations
  1. Corners of Wall Penetrations
    - a. Because insulation board joints cannot align with corners of openings, first cut L-shaped pieces of insulation board for the corners of the opening. Then measure and cut the insulation board to the proper length to fit between the corner pieces over the opening.
      - 1) Insulation board at heads of openings shall be notched when J track is specified as shown in the Dryvit Outsulation LCMD Systems 1-5 Installation Details, DS170.
  2. Wrapping Openings
    - a. Attach Detail Mesh around the perimeter of the opening as described in Section VII.B.1.b).
    - b. Hold the insulation board back from the window/door frame or mechanical equipment to allow for differential movement, proper system edge preparation, and sealant installation as shown in the Dryvit Outsulation LCMD Systems 1-5 Installation Details, DS170.

3. J-Track options - Installation of J-Track at heads of all openings [length not to exceed 6 m (20 ft)]
 

**TIP: It is recommended to use a 19 mm (3/4 in) casing bead as manufactured by Plastic Components – item numbers 1075 or CB-75-25 (minimum EPS thickness shall be 44 mm (1 3/4 in)).**

  - a. Insulation board shall be notched to receive J-track as shown in the Dryvit Outsulation LCMD Systems 1-5 Installation Details, DS170.
  - b. Measure and cut J-Track so that it extends 152 mm (6 in) beyond the edges of the opening as shown in Outsulation LCMD System 1-5 Installation Details DS170.
  - c. Install the J-Track by applying a continuous bead of Dryvit AP Adhesive on the wall side of the vertical nailing flange of the track and position over the notched insulation board. Press firmly against the substrate to ensure firm and continuous contact between the adhesive and the wall surface.
  - d. Secure the track to the wall using corrosion resistant fasteners attached into the underlying framing members. **NOTE: It is recommended that the surface of the track be lightly sanded to improve adhesion.**
  - e. Install the Flashing Tape on the flange of the J-Track and the adjacent wall in order to ensure water-tightness at the flange/wall interface. See Section V for proper application.
4. Corners of all openings such as windows, doors, mechanical equipment and all penetrations shall be reinforced with Detail Mesh placed diagonally to the opening as illustrated in Figure 2.

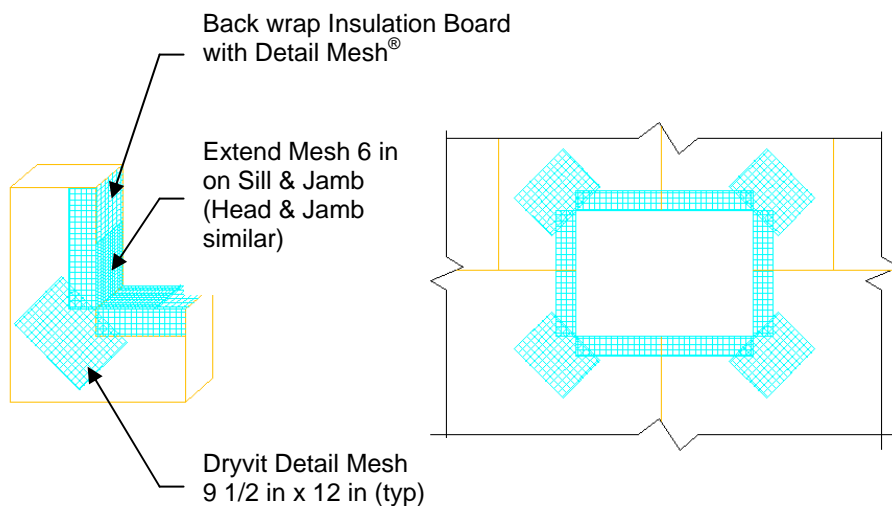


Figure 2

F. Expansion Joints

1. Attach Detail Mesh around the perimeter of the opening as described in Section VII.B.1.b).
2. When abutting dissimilar materials, leave a minimum 19 mm (3/4 in) separation between the insulation board and abutting material to allow for differential movement, proper system edge preparation and sealant installation.
3. When the Outsulation LCMD Systems 1-5 are installed at a substrate transition, leave a minimum 19 mm (3/4 in) separation between the insulation boards to allow for differential movement, proper system edge preparation and sealant installation.

G. Slivering

1. If for any reason the insulation board joints are not butted tightly, slivers of insulation board must be installed to fill any gaps. ALL GAPS GREATER THAN 1.6 mm (1/16 in) MUST BE SLIVERED. **TIP: In order to create a tight fit, it is recommended that a wider joint be cut with a hot groover or similar tool to allow for a more precise fitting sliver. Do not install adhesive on sliver edges.**

H. Aesthetic Reveals

1. To install an aesthetic reveal, snap a straight line using a chalk line to mark the location.
2. Position a straight edge such as a steel stud or track against the insulation board in the proper location to guide the appropriate cutting tool (router, hot knife, or hot groover). **CAUTION: The thickness of the insulation board in the bottom of the reveal must not be less than 19 mm (3/4 in).**
3. Use Detail Mesh to ensure continuity of reinforcing mesh through aesthetic reveals continuing a minimum of 64 mm (2 1/2 in) on each side of the reveal.
  - a. Apply the base material mixture in the reveal and on the adjacent insulation board surfaces.
  - b. Embed the Detail Mesh into base coat mixture on one side of the reveal only.

- c. Use a sled or special tool configured to the profile of the reveal. Embed the Detail Mesh into the base coat mixture through the reveal being careful not to cut the mesh.
- d. Embed the Detail Mesh into the base coat mixture on the other side of the reveal. Ensure that the mesh is fully embedded and that all excess material is removed from the reveal.
- e. Using a damp brush, smooth out any irregularities in the base coat.  
**CAUTION: If the mesh is cut in the reveal, a new piece of mesh must be installed over the cut or cracks can occur.**

I. Preparation of Insulation Board for Base Coat Application

- 1. **IMPORTANT:** Once the insulation board and Detail Mesh are in place, wait a minimum of 24 hours prior to working on the surface of the insulation board to prevent any movement which may weaken the bond of the adhesive mixture to the substrate. **NOTE: Be sure to protect the installed insulation board from rain, freezing or inclement weather for a period of 24 hours.**
- 2. Any irregularities in the insulation board surface must be sanded flat. Sanding is accomplished with a light circular motion. **The entire wall area must be sanded.** Use grade 20 grit sandpaper or coarser, in conjunction with hand, electric or air rasps. Use OSHA required masks to protect against inhaling EPS dust. **NOTE: Do not sand parallel to the insulation board joints.**
- 3. Remove all loose pieces of insulation board and dust from the sanding operation using a brush, broom, vacuum, or compressed air. Use OSHA required masks to protect against inhaling EPS dust.
- 4. All Detail Mesh that was previously installed for back wrapping the insulation board shall be embedded in the base material mixture at this time.
  - a. With a stainless steel trowel, apply the base material mixture to the face (and edge if not previously coated) of the insulation board and embed the Detail Mesh in the wet mixture. **NOTE: It is not recommended to use NCB to embed reinforcing mesh at EPS edges that will receive sealant.**
- 5. Where Corner Mesh is specified for additional impact resistance at outside corners, the Corner Mesh shall be embedded in the base coat mixture and allowed to set prior to installing the overall reinforced base coat over the face of the wall.

VIII. Installation of Reinforcing Mesh and Base Coat

A. General

- 1. Prior to installing the reinforced base coat, inspect the surface of the insulation board for:
  - a. Flatness: Use a minimum 2.4 m (8 ft) straight edge. Sand any high areas and out-of-plane board joints flat, as described in Section VII.I.2 and 3. **CAUTION: Do not build up low areas with base coat mixture to form a flat surface.**
  - b. Damage and foreign materials: correct deficiencies as necessary.
  - c. Surface degradation due to weathering or UV (visible as discoloration). Sand affected areas to remove deterioration while maintaining the flatness of the surface.
- 2. **Do not apply the Dryvit materials in the rain. The insulation board must be dry prior to applying the base coat material.**
- 3. Mix the base coat material as described in Section III.B and C.
- 4. Prior to installing the reinforcing mesh, it should be inspected to ensure that it has been furnished by Dryvit Systems, Inc.
  - a. Dryvit reinforcing mesh is available in the following widths and lengths:
    - 1) Standard - 1.2 m x 45.7 m (48 in x 150 ft); 1.8 m x 45.7 m (72 in x 150 ft)
    - 2) Standard Plus and Intermediate - 1.2 m x 45.7 m (48 in x 150 ft)
    - 3) Panzer 15 - 1.2 m x 22.9 m (48 in x 75 ft)
    - 4) Panzer 20 - 1.2 m x 22.9 m (48 in x 75 ft)
    - 5) Corner - 235 mm x 45.7 m (9 1/4 in x 150 ft)
    - 6) Detail - 241 mm x 45.7 m (9 1/2 in x 150 ft)

B. Base Coat Application

- 1. For system configurations 1, 2, or 3 where mechanical fasteners are used to secure the insulation board, all fasteners must be spotted with the Genesis or Genesis DM mixture prior to applying the base coat over the entire wall surface.
- 2. Standard Base Coat (single layer of Standard, Standard Plus or Intermediate Reinforcing Mesh)
  - a. The base coat shall be applied such that the resulting overall minimum base coat thickness is sufficient to **fully embed** the reinforcing mesh. The recommended method is to apply the base coat in two (2) passes.
  - b. Double pass method (recommended)
    - 1) Using a stainless steel trowel, apply the base coat mixture on the entire surface of the insulation board to an area slightly larger than the width and length of a piece of reinforcing mesh, in a uniform thickness of 1.6 mm (1/16 in). **NOTE: The reinforcing mesh may be installed either vertically or horizontally.**
    - 2) Immediately place the reinforcing mesh against the wet base coat mixture. With the curve of the mesh against the wall, trowel from the center to the edges avoiding wrinkles, until the mesh is fully

embedded and not visible. Trowel smooth to a uniform thickness slightly more than the thickness of the reinforcing mesh. **NOTE: The reinforcing mesh shall be continuous at corners and mesh edges lapped not less than 64 mm (2 1/2 in). Do not lap the reinforcing mesh within 203 mm (8 in) of a corner. Tip: Corners and edges normally require light strokes with a small damp brush to smooth out irregularities.**

- 3) Allow the base coat mixture to take up until firm to the touch. Trowel a second tight coat of the base coat mixture over the first coat to **fully cover** the reinforcing mesh - Figure 3. The result should be such that the reinforcing mesh is approximately centered within the base coat thickness. Do not allow the first pass to completely dry prior to the second pass application or an excessive amount of base coat mixture will be necessary to fully coat the wall surface.

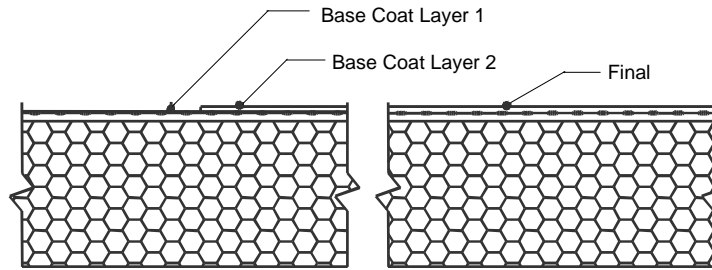


Figure 3

- c. Single pass method (optional)
  - 1) Apply the base coat as described in Section VIII.B.2.b.1) and 2).
- d. Protect completed work from water penetration and runoff.
- e. Allow the base coat to cure a minimum of 24 hours before proceeding with application of finish coat. Cool, damp conditions may require longer drying times. Do not apply finish to a wet or damp base coat.
3. Panzer Mesh Base Coat (Panzer 15 or Panzer 20 used in conjunction with Standard or Standard Plus Reinforcing Mesh). **Panzer Mesh is recommended for use at all ground floor locations and at high traffic areas. Refer to contract documents.**
  - a. Using a stainless steel trowel, apply the base coat mixture on the entire surface of the insulation board to an area slightly larger than the width and length of a piece of reinforcing mesh, in a uniform thickness of approximately 3.2 mm (1/8 in).
  - b. Immediately place the reinforcing mesh against the wet base coat mixture. With the curve of the mesh against the wall, trowel from the center to the edges avoiding wrinkles until the mesh is fully covered and not visible.
  - c. Continue in the same manner until the entire area requiring Panzer Mesh is covered. **CAUTION: Do not lap the Panzer Mesh. Adjacent pieces are to be tightly butted.**
  - d. Protect completed work from water penetration and runoff.
  - e. Allow the Panzer base coat to cure a minimum of 24 hours prior to applying Dryvit's Standard or Standard Plus Reinforcing Mesh.
  - f. Apply the second layer of reinforcing mesh in accordance with Section VIII.B.2.c. Offset the edges of the Standard or Standard Plus Reinforcing Mesh from the edges of the Panzer Mesh a minimum of 203 mm (8 in). **TIP: If Panzer Mesh is installed horizontally, we recommend the Standard or Standard Plus Mesh be installed vertically and vice versa.**
- C. Installation of Dryflex base coat in high exposure areas such as sloped surfaces, window sills, etc.
  1. Using a stainless steel trowel, apply the Dryflex mixture on the surface of the insulation board in a uniform thickness of approximately 2.4 mm (3/32 in). Apply the Dryflex continuously over the sloped surface and continue minimum 152 mm (6 in) onto the vertical areas.
  2. Immediately place the reinforcing mesh against the wet Dryflex mixture. With the curve of the mesh against the wall, trowel from the center to the edges, avoiding wrinkles, until the mesh is fully covered and not visible. The overall minimum base coat thickness shall be sufficient to **fully embed** the reinforcing mesh. The recommended method is to apply the base coat in two (2) passes.
  3. Allow the Dryflex to cure a minimum of 24 hours or until dry.

**IX. Sealant Joint Preparation**

- A. All Outsulation LCMD Systems 1-5 base coat surfaces which will be in contact with sealant must be coated with either Color Prime or Demandit.
  1. Mix Color Prime or Demandit in accordance with Section III.D and G respectively.

2. Using a small brush, apply Color Prime or Demandit to the base coat surface that is to be in contact with the sealant and extending to the joint edge.
3. Allow the Color Prime or Demandit to dry a minimum of 48 hours prior to applying the sealant. Cool damp weather may require longer drying times.
4. Refer to sealant manufacturer's installation instructions for the proper application of the sealant and sealant primer.

**X. Dryvit Primers**

- A. Prior to applying the Dryvit primers, the base coat shall have cured a minimum of 24 hours and shall be dry and hard. Cure time may be longer depending on environmental conditions. **NOTE: Refer to Product Data Sheets when applying over other materials.**
- B. Inspect the base coat for any irregularities such as trowel marks, board lines, rough corners and edges, improper reinforcing mesh embedment as well as efflorescence. **NOTE: Correct all irregularities and remove all efflorescence prior to applying the Dryvit primer.**
- C. Color Prime and Weatherprime
  1. Mix to a smooth homogeneous consistency in accordance with Section III.D.
  2. Apply with a brush, roller, or airless spray equipment. Refer to Color Prime or Weatherprime Data Sheets, DS410 or DS436 respectively, for complete instructions.
- D. Color Prime W
  1. Mix to a smooth homogeneous consistency in accordance with Section III.D.
  2. Application with airless spray equipment is recommended. Refer to Color Prime W Data Sheet, DS474, for complete instructions.
- E. Primer with Sand
  1. Mix to a smooth homogeneous consistency in accordance with Section III.D.
  2. Application with a roller is recommended. Refer to Primer with Sand Data Sheet, DS477, for complete instructions.

**XI. Dryvit Finish**

- A. Examination
  1. Prior to applying the Dryvit finish, the base coat shall have cured a minimum of 24 hours and shall be dry and hard. Cure time may be longer depending on environmental conditions.
  2. Inspect the base coat for any irregularities such as trowel marks, board lines, rough corners and edges, improper reinforcing mesh embedment as well as efflorescence. **NOTE: Correct all irregularities and remove all efflorescence prior to applying the Dryvit finish.**
- B. Application
  1. General
    - a. Important: All Dryvit finishes must be installed continuously to a natural break such as corners, expansion joints, or tapeline. Mechanics must maintain a wet edge. Whenever possible, order enough material in a single batch to complete the project to avoid potential color variations from batch to batch. Sufficient personnel and scaffolding must be provided to continuously finish a distinct wall area or otherwise cold joints will result. Scaffolding must be spaced a minimum of 457 mm (18 in) from the wall to prevent staging lines. On hot windy days, the wall may be fogged with clean potable water to cool the wall and facilitate finish installation. As with other plaster materials, installation work should precede the sun. For example, work the shady or cool side of the building. If this is not possible, scaffold should be shaded with a tarp or nursery shade cloth. Do not introduce water to the finish material once it is installed on the wall. This will cause color variations. Each mechanic must use the same tool and hand motion and match the texture of the mechanics above, below and on each side. Use finish from a single batch number whenever possible to avoid color match problems. If a different batch must be used, try to use on a different elevation.
    - b. Do not apply Dryvit materials in the rain. The base coat must be dry prior to applying the Dryvit finish or coatings.
    - c. Do not apply textured Dryvit finish material in sealant joints. Refer to Section IX for proper preparation of the Outsulation LCMD System at sealant joints.
  2. Quarzputz, Quarzputz E, Sandblast, and Weatherlastic Quarzputz
    - a. Mix the Dryvit finish as described in Section III.E.
    - b. Using a clean stainless steel trowel, apply a coat of the Dryvit finish in a uniform thickness on the dry base coat. **Note: The Dryvit Quarzputz finish shall be applied and leveled to a uniform thickness no greater than the largest aggregate. The Sandblast finish is applied and leveled to a thickness of approximately 1 1/2 times the largest aggregate.**

- c. The texture is achieved by uniform hand motion and/or tool that produces the texture to match the approved sample. Each mechanic must use the same tool and hand motion to ensure that the texture achieved is uniform over the entire wall area.
3. Sandpebble, Sandpebble E, Sandpebble Fine, Sandpebble Fine E, Weatherlastic Sandpebble, and Weatherlastic Sandpebble Fine
  - a. Mix the Dryvit finish as described in Section III.E.
  - b. Using a clean, stainless steel trowel, apply an even coat of the finish to a thickness slightly thicker than the largest aggregate size.
  - c. Pull across using a horizontal trowel motion to develop a uniform thickness no greater than the largest aggregate of the material.
  - d. The texture is achieved by a uniform hand floating motion with a clean stainless steel trowel; wipe the trowel and wet it lightly. Apply light pressure in a circular motion.
4. Freestyle
  - a. Mix the Dryvit finish as described in Section III.E.
  - b. Using a clean, stainless steel trowel, apply the Freestyle finish on the base coat in a thickness not greater than 1.6 mm (1/16 in). The texture is either pulled out of this base to a thickness of no greater than 6.4 mm (1/4 in) or the texture may be achieved by adding more Freestyle finish to the base coat using the same texturing motions that are used with other plaster materials, such as, a skip trowel finish. Numerous other aesthetically pleasing textures can be created to match approved samples.  
**NOTE: The maximum thickness of Freestyle finish texture shall not exceed 6.4 mm (1/4 in).**
5. Weatherlastic Adobe
  - a. Using a brush, roller or airless spray equipment, apply a coat of color coordinated Color Prime (see Section III.D for mixing instructions) at the recommended coverage to the cured base coat and allow to dry.
  - b. Mix the Weatherlastic Adobe finish material as described in Section III.E.
  - c. Using a stainless steel trowel, apply a coat of Weatherlastic Adobe approximately 1.6 mm (1/16 in) to the wall surface. Allow the Weatherlastic Adobe finish to take-up.
  - d. Using a stainless steel trowel, apply a second coat of Adobe to obtain the desired texture. **Tip: An atomizing spray bottle may be used to apply a mist of water to the surface in the finishing step.**
6. Ameristone
  - a. Mix the Ameristone finish as described in Section III.F.1.
  - b. Apply Ameristone finish in accordance with Ameristone Spray Application Instructions, DS142.
7. Stone Mist
  - a. Mix the Stone Mist finish as described in Section III.F.2.
  - b. Apply Stone Mist finish in accordance with Stone Mist Data Sheet, DS420.
8. TerraNeo
  - a. Mix the TerraNeo finish as described in Section III.F.3.
  - b. Apply TerraNeo finish in accordance with TerraNeo Data Sheet, DS481.
9. Limestone
  - a. Mix the Limestone finish as described in Section III.F.4.
  - b. Apply Limestone finish in accordance with Limestone Data Sheet, DS472.
10. Custom Brick
  - a. Refer to Dryvit Custom Brick Application Instructions, DS154 and DS214, for complete installation instructions.
11. Reflectit
  - a. Mix the Reflectit finish as described in Section III.F.6.
  - b. Apply Reflectit finish in accordance with Reflectit Spray Application Instructions, DS124, for complete installation instructions.

## XII. Coatings and Sealers

**NOTE: Coatings and Sealers are not intended to be applied directly over base coat; they are intended to be applied over Dryvit finishes.**

- A. Demandit and Weathercoat
  1. Mix to a smooth homogeneous consistency in accordance with Section III.G.1.
  2. Apply with a brush, roller, or airless spray equipment.
  3. When applying with a roller, a maximum 19 mm (3/4 in) nap, polyester or polyester blend with nylon or lambswool, with beveled ends and a phenolic core is recommended. A 457 mm (18 in) wide roller frame with a 57 mm (2 1/4 in) inside diameter is also recommended.
  4. Apply in one continuous coat, maintaining a wet edge as the application proceeds to a natural break. The roller cover must be kept fully loaded as the application proceeds. **CAUTION: Do not stretch out the**

application by rolling with a dry roller. The last leveling roller strokes should always be in the same direction. Do not cut in around openings prior to overall application, but rather, do the cut-in work as the application proceeds.

5. Do not allow Demandit or Weathercoat to dry on roller covers. Roller covers with dried coating do not apply the coating evenly.
  6. Changing color requires the application of two coats (minimum).
- B. Revyvit
1. Mix the Revyvit to a smooth homogeneous consistency in accordance with Section III.G.1.
  2. Apply the Revyvit with a brush or 12.7 mm – 15.9 mm (1/2 in - 5/8 in) nap roller.
  3. Roll or brush in multiple directions and then lightly finish in one direction to ensure that no lap marks remain.
  4. A second coat may be required for heavy textured surfaces or when there is a contrast of colors. Apply the second coat as described in paragraph XII.B.2 and 3 above. **CAUTION: Do not attempt to apply Revyvit in one heavy coat. Two coats are recommended. Apply the second coat only after the first coat is completely dry. Important: Texture changes will exist after Revyvit is applied over existing Dryvit finishes. The degree of change is a function of the thickness and the number of coats of Revyvit.**
- C. Weatherlastic Smooth
1. Mix the Weatherlastic Smooth to a smooth, homogeneous consistency in accordance with Section III.G.1.
  2. Apply a minimum 11 mils dry film thickness (22 mils wet film thickness). This is achieved by applying the Weatherlastic Smooth in two (2) 11 mil wet coats. Under average drying conditions, 21 °C (70 °F), 50 % RH, two (2) hours drying time between coats should be adequate.
  3. For cutting-in and trim, a nylon bristle brush is recommended.
  4. Roller Application
    - a. A minimum 254 mm (10 in) roller cover with a 32 mm - 38 mm (1 1/4 in - 1 1/2 in) nap is recommended.
    - b. Completely saturate the roller cover and keep the roller loaded with coating to avoid foaming. Do not dry-roll or over-roll as this will cause excessive entrapment of air within the coating.
    - c. A second coat is applied in a similar manner after the first coat has adequately dried.
  5. Spray Application
    - a. Application by airless spray equipment or mastic pump and gun allows application of coating at total required application rate with a minimum of stipple or thickness variations.
    - b. Equipment should have the capacity to pump 7.6 L (2 gal) of coating per minute.
    - c. Material hose should be minimum 12.7 mm (1/2 in) inside diameter for spraying coating through more than a 15.2 m (50 ft) length. Minimum bursting of 3600 N (800 lbs) is recommended. **TIP: Orifice sizes of 0.53 mm - 0.81 mm (.021 in - .032 in) will be required depending on equipment used.**
    - d. Cross apply coating holding spray gun perpendicular to, and approximately .91 m (3 ft) from the wall surface. Avoid excessive material build-up by holding spray gun away from the wall when pulling the trigger, then bringing gun across area to be coated. Maintain a wet edge and avoid starting and stopping in the middle of the wall. Do not attempt to overreach spray pattern as this may result in appearance of irregular spray pattern. Place scaffolding and equipment to facilitate quick application without numerous interruptions.
    - e. A 10% loss from overspray should be anticipated.
    - f. Backrolling sprayed areas is recommended to control pinholing on spray applications over porous surfaces.
- D. Tuscan Glaze
1. Mix Tuscan Glaze to a smooth homogenous consistency in accordance with Section III.G.2. Continuously agitate throughout application to ensure color consistency.

### XIII. Maintenance and Repair

- A. Refer to DryvitCARE EIFS Repair Procedures, DS498.

#### **DISCLAIMER**

Information contained in this document conforms to standard detail and product recommendations for the installation of the Dryvit Outsulation LCMD Systems 1-5 products as of the date of publication of this document and is presented in good faith. Dryvit Systems, Inc. assumes no liability, expressed or implied, as to the architecture, engineering or workmanship of any project. To insure that you are using the latest, most complete information, contact Dryvit Systems, Inc. at:

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