



APPLICATION INSTRUCTIONS

Outsulation® Mineral Wool System

An Exterior Insulation and Finish System with Moisture
Drainage that incorporates Mineral Wool Continuous
Insulation and an Air/Water-Resistive Barrier DS981

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1. GENERAL INSTALLATION REQUIREMENTS

A. Project Conditions

1. Storage of Dryvit Materials

- a) Materials shall be stored at the job site, and at all times, in a cool, dry location, out of direct sunlight, protected from weather and other sources of damage. Minimum storage temperature for Genesis and Backstop NTX shall be 40 °F (4 °C).
- b) Maximum storage temperature shall not exceed 100 °F (38° C). **NOTE: Minimize exposure of materials to temperatures over 90 °F (32 °C).**
- c) Protect all products from inclement weather and direct sunlight.

2. Storage of Tremco Materials

- a. Keep product from freezing prior to being applied to the substrate.
- b. Materials shall be stored at the job site, and at all times, in a cool, dry location, out of direct sunlight, protected from weather and other sources of damage. Storage temperatures shall be 40 °F – 100 °F (4 °C - 38° C)

3. Storage of ROCKWOOL™ insulation

- a. The factory packaging is intended for the protection of ROCKWOOL stone wool insulation during shipment and for short term job site storage. It is not intended for protection against the elements during long term outside storage.

For long term storage, ROCKWOOL strongly recommends that the product be stored indoors, in a dry location with the factory packaging removed. If the product is stored outdoors, the factory packaging should be perforated and the product should be protected by a waterproof membrane such as a tarp, that has been properly secured and allowing for ventilation. Product should not be stored in areas that flood, resulting in product storage in standing polluted water. Product should be a minimum of 102 mm (4 inches) above dry ground and kept on a solid flat surface.

For more information: <https://www.rockwool.com/syssiteassets/o2-rockwool/documentation/technical-bulletins/commercial/storage-of-rockwool-products---technical-bulletin.pdf>

3. Application of Dryvit Materials

- a. Application of wet materials shall not take place during inclement weather unless appropriate protection is provided. Protect materials from inclement weather until they are completely dry.
 - 1) At the time of Dryvit Genesis application, the air and wall surface temperatures shall be from 40 °F (4 °C) minimum to 100 °F (38° C) maximum.
 - 2) At the time of Dryvit Backstop NTX application, the air and wall surface temperatures shall be from 25 °F (-4 °C) minimum to 100 °F (38° C) maximum.
- b. These temperatures shall be maintained with adequate air ventilation and circulation for a minimum of 24 hours thereafter, or until the products are completely dry. Refer to published product data sheets for more specific information.

4. Application of Tremco Materials

- a. When applying to surfaces below 40 °F (4 °C), please refer to the Technical Bulletin - Cold Temperature Recommendations for Air Barrier Applications at www.tremcosealants.com or contact Tremco Technical Service at 866-209-2404.
 - i. At the time of Tremco ExoAir 230 application, the air and wall surface temperatures shall be from 40 °F (5 °C) minimum to 158 °F (70° C) maximum.
 - ii. At the time of Tremco ExoAir 230LT application, the air and wall surface temperatures shall be from 20 °F (-6 °C) minimum to 158 °F (70° C) maximum.

B. Inspection of Substrate for EIF System Application

1. Acceptable substrates for application of the Outsulation Mineral Wool System including Backstop NTX and Tremco ExoAir 230 are listed in the Outsulation Mineral Wool System Specification, DS982.
2. The substrate must be securely fastened per contract documents.
3. The substrate attachment method must comply with all contract documents.
4. The substrate must be clean, dry, structurally sound, free of loose material, voids, projections, hot spots, release agents, coatings, or other materials that may affect adhesion.
5. There shall be no planar irregularities greater than 1/4 in (6.4 mm) within any 4 ft (1.2 m) radius.
6. Wood based sheathings require a 1/8 in (3.2 mm) gap between adjacent sheets per the guidelines published by the APA.

7. CMU walls shall have all joints filled and struck flush. Mortar should be cured a minimum of 7 days. Any voids shall be patched with mortar, a non-shrinking grout or other approved patching material.

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 Mineral Wool System Installation Details, DS983.
- 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 (by others) shall be installed in accordance with industry guidelines, manufacturer's instructions and contract documents.
- c. Runoff diverters (i.e. kickouts, crickets and saddles) (by others) shall be installed in accordance with industry guidelines, manufacturer's instructions and contract documents. Particular attention must be paid to the eaves/chimney intersections and sloped roof/wall intersections. Refer to the Outsulation Mineral Wool System Installation Details, DS983.
- d. Hold system a minimum of 8 in (203 mm) above flat roofs; 2 in (51 mm) above sloped roofs and paved surfaces.
- e. Roofing systems shall be capped and sealed, or top of walls protected, in such a way as to eliminate the ability of water to saturate the wall or interior space, both before and after, air barrier system installation. Coordinate installation of the air/water resistive barrier with the roofing trade to ensure compatibility and continuity with the roofing system.

2. Openings

- a. Heads, jambs and sills of all openings shall be prepared with Dryvit Backstop® NTX™ and grid tape, AquaFlash® System, Dymonic 100, or other approved flashing material selected by the design professional prior to window/door, mechanical equipment, or other component installation. For proper application, refer to the Outsulation Mineral Wool System Installation Details, DS983.
 - i. **NOTE: Flashing application at sill shall extend to the inside edge of framing and continue a minimum of 4 in (102 mm) up at the jambs. Dryvit Backstop® NTX™ may not be used as a flashing material at the sill of a rough opening.**
- 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 shall be supplied and installed (by others) in accordance with industry guidelines, manufacturer's instructions and contract documents. Refer to the Outsulation Mineral Wool System Installation Details, DS983.**
- 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.

3. Decks and Patios

- a. Wood decks shall be properly flashed and sealed as required to prevent water penetration behind the Outsulation Mineral Wool System prior to system application.
- b. Verify that the system terminates above poured decks, patios, landings, etc. and that they are properly sloped and waterproofed to direct water away from the walls.

4. 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 Mineral Wool System Installation Details, DS983, for general information and guidance.

5. Grade Level Terminations

- a. Hold system a minimum of 6 in (152 mm) above finished grade where paved surfaces are not present, and 2 in (51 mm) where paved surfaces are present.

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 Tremco, but may also be supplied by others. Refer to DS920 or DS153 for a list of sealants that have been tested by the sealant manufacturers and found to be compatible with Dryvit products. **NOTE: Dryvit will provide a 2-year extension to the warranty term when Tremco sealants are used.**

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

2. PRODUCTS THAT MAY BE REQUIRED FOR COMPLETING INSTALLATION OF THE OUTSULATION MINERAL WOOL SYSTEM

A. Materials Supplied by Dryvit

1. AquaFlash and AquaFlash Mesh
2. Backstop® NTX™ - Texture or Smooth
3. Backstop® Flash and Fill
4. Grid Tape™
5. Genesis®
6. Standard Plus Mesh, Intermediate Mesh, Panzer® 15, Panzer 20, and Detail Mesh®
 - a. Mesh shall be colored blue for product identification bearing the Dryvit logo.
7. Dryvit Finishes
8. Dryvit Coatings and Primers

NOTE: Materials listed above are those contained or referenced in the the Outsulation Mineral Wool System Specification, DS982. Typically the project specification will identify the specific materials necessary to complete application.

B. Products Manufactured by Tremco and Approved by Dryvit

1. Joint Sealants
2. ExoAir 230
3. Dymonic 100
4. Tremco 2011 Mesh

NOTE: Products listed above are those contained or referenced in the Outsulation Mineral Wool System Specification, DS982. Typically, the project specification will identify the specific Products and Materials necessary to complete application.

C. Materials Supplied by Others

1. Portland Cement: Type I, II or 1L
2. Clean Potable Water
3. ROCKWOOL Frontrock® Mineral Wool Insulation as manufactured by ROCKWOOL
4. Mechanical Fasteners and Washer Plates as manufactured by EJOT or Wind-Lock

3. 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. Air/Water-Resistive Barrier Materials

1. AquaFlash
 - a. Open the bucket with a utility knife or lid-off.
 - b. AquaFlash is ready to use after an initial spin-up using a “Twister” paddle or equivalent mixing blade, powered by a 1/2 in (12.7 mm) drill, at 450 - 500 rpm. Do not add cement or any other additives.
2. Backstop NTX
 - a. Open the bucket with a utility knife or lid-off.
 - b. Backstop NTX is ready to use after an initial spin-up using a “Twister” paddle or equivalent mixing blade, powered by a 1/2 in (12.7 mm) drill, at 450 - 500 rpm. Do not add cement or any other additives.

C. Adhesive and Base Coat

1. 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 1/2 in (12.7 mm) 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 30 lbs (13.5 kg)] into a clean plastic container.
- d. Add 1/3 of a bag [approximately 30 lbs (13.5 kg)] of fresh, lump free Type I, II or 1L 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) Add 1 qt (950 ml) of water prior to adding Portland cement. Additional water may be added to adjust workability. Do not over water as this will degrade the performance and promote efflorescence.
 - 2) 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.

4. ROUGH OPENING PREPARATION OPTIONS

A. AquaFlash System Option

1. AquaFlash must be installed to provide a continuous barrier from the air/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 Mineral Wool System Installation Details, DS983.
2. Surface Preparation
 - a. Apply only when air and surface temperatures are from 40 °F (4 °C) minimum to 100 °F (38 °C) maximum.
 - b. The surface to receive the AquaFlash System must be clean, dry, smooth and free of any condition that may affect adhesion.
 - c. Clean loose dust or dirt from the surface by wiping with a clean, dry cloth or brush.
3. AquaFlash System Application
 - a. Rough Openings (Windows, Doors, Others)
 - 1) Cut AquaFlash Mesh to proper length [rough opening plus 4 in (102 mm)] extending 2 in (51 mm) past each jamb – **Figure 1.**

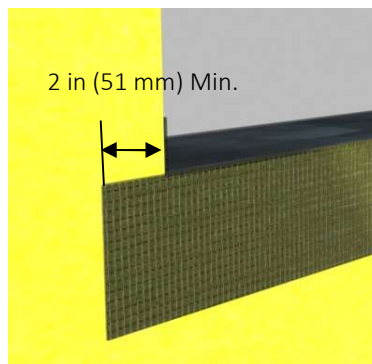


Fig. 1

- 2) Begin at the sill of an opening. Using a brush or 3/4 in (19 mm) nap roller, apply a liberal coat of AquaFlash Liquid material to the air/water-resistive barrier/substrate surface.
NOTE: The AquaFlash System must extend to the interior face of the wall opening.
- 3) Immediately lay the AquaFlash Mesh into the wet material and brush smooth adding additional material to completely embed the mesh - **Figure 2**.

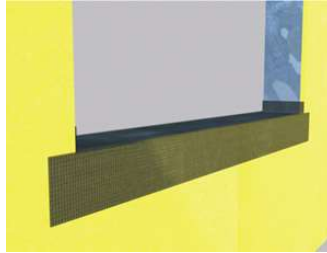


Fig. 2

- 4) Install the AquaFlash System at the jambs in the same manner overlapping onto the sill material a minimum of 2 in (51 mm) – **Figure 3**.

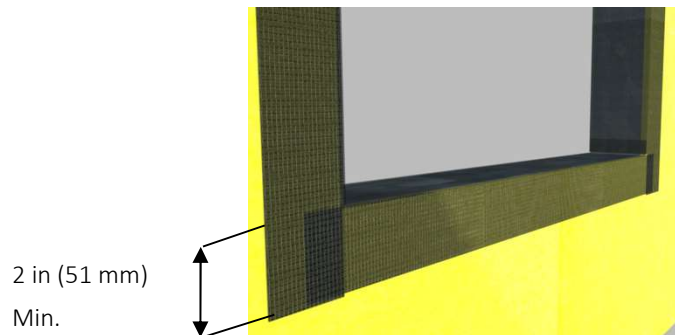


Fig. 3

- 5) Install the AquaFlash System at the head overlapping the jamb pieces a minimum of 2 in (51 mm) – **Figure 4**.

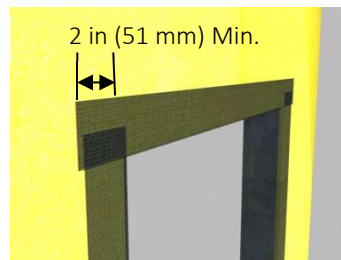


Fig. 4

- 6) Install diagonal “butterflies” consisting of AquaFlash Liquid and AquaFlash Mesh at each sill/jamb corner – **Figure 5**.



Fig. 5

- 7) Allow material to set for approximately 15 minutes then apply a second liberal coat of AquaFlash Liquid and smooth out to ensure a continuous film free of voids, pinholes, or other discontinuities.

4. Sill Pan Flashing (Exposed)

- a. Install a watertight pan flashing at all sill locations - Figure 6.
- b. The flashing shall extend between the framing members of the rough opening and shall be sized to protect the sill, sheathing and the surface of the Outsulation Mineral Wool System. It must include vertical legs at the back and sides to ensure proper collection of water. **NOTE: All flashing shall be continuous, have watertight seams, and shall be configured to shed all water to the exterior of the system.**
- c. The flashing shall extend a minimum of 2 1/2 in (64 mm) down over the face of the Outsulation Mineral Wool System - **Figure 6.**

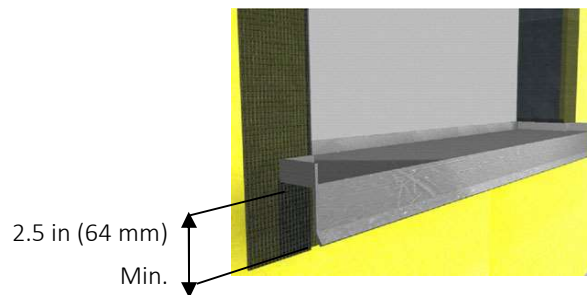


Fig. 6

5. Sill Pan Flashing (Concealed) for use with nail-on-windows (refer to Dryvit Outsulation Mineral Wool Installation Details, DS983.)

- a. Install a watertight pan flashing at all sill locations.
- b. The flashing shall extend between the framing members of the rough opening and shall be sized to protect the sill and sheathing. It must include vertical legs at the back and sides to ensure proper collection of water. It shall extend a minimum of 4 in (102 mm) below the opening and have a sloped horizontal leg which continues over the top edge of the Outsulation Mineral Wool System. **NOTE: All flashing shall be continuous, have watertight seams, and shall be configured to shed all water to the exterior of the system.**

6. Installation of AquaFlash Over Metal or PVC Flashing Materials

- a. The AquaFlash System may be applied directly over clean galvanized, painted metal, or PVC flashing.
- b. Prepare rough opening as described in Section 4.A.3.
- c. Install flashing material per contract documents.
- d. Clean the surface of the flashing to ensure that it is free of dirt, dust, oil, or other contaminants that may affect adhesion. **NOTE: PVC products should be lightly abraded to break the surface skin and provide tooth for the coating.**
- e. Cut AquaFlash Mesh to proper length [flashing plus 4 in (102 mm) extending 2 in (51 mm) beyond each end of flashing] - **Figure 7.**



Fig. 7

- f. Using a brush or 3/4 in (19 mm) nap roller, apply a liberal coat of AquaFlash Liquid material to the flashing and adjacent air/water-resistive barrier/substrate surface.
- g. Immediately lay the AquaFlash Mesh into the wet material and brush smooth adding additional material to completely embed the mesh.
- h. Allow material to set for 15 minutes then apply a second liberal coat of AquaFlash Liquid and smooth out to ensure a continuous film free of voids, pinholes, or other discontinuities and allow to dry.

B. Backstop NTX Option

1. Surface Preparation

- a. For Backstop NTX, apply only when air and surface temperatures are from 25 °F (-4 °C) minimum to 100 °F (38 °C) maximum.
- b. The surface to receive the Backstop NTX must be clean, dry, smooth and free of any other condition that may affect adhesion.
- c. Remove loose dust or dirt from the surface by wiping with a clean, dry cloth or brush.

2. Dryvit Backstop NTX Application

NOTE: Backstop NTX may be applied to the sill of the opening but it must also be covered with the Dryvit AquaFlash System.

a. Rough Openings (Windows, Doors, Others)

- 1) Apply Dryvit Grid Tape along the jambs and head of the opening as well as all sheathing joints that may intersect the opening and lap onto face of wall a minimum of 2 in (51 mm). Add additional pieces of Grid Tape at the inside corners of the opening to maintain continuity – **Figure 8**.

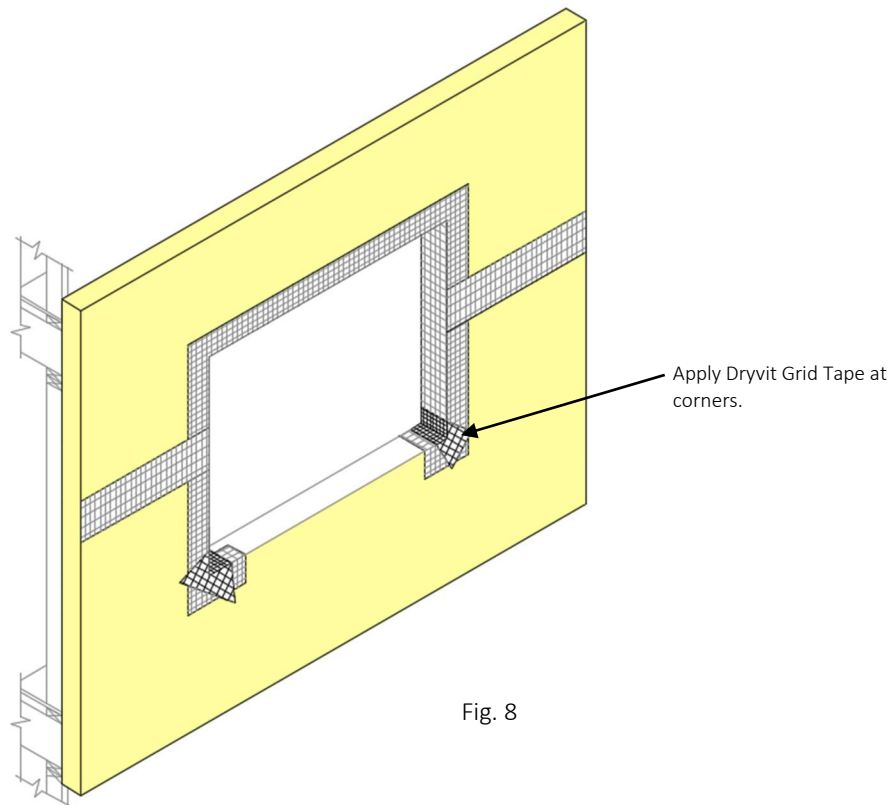


Fig. 8

- 2) Using a stainless steel trowel apply Backstop NTX – Texture over the Grid Tape extending to the inside face of the opening and onto the face of the exterior sheathing a minimum of 6 in (152 mm) – **Figure 9**.

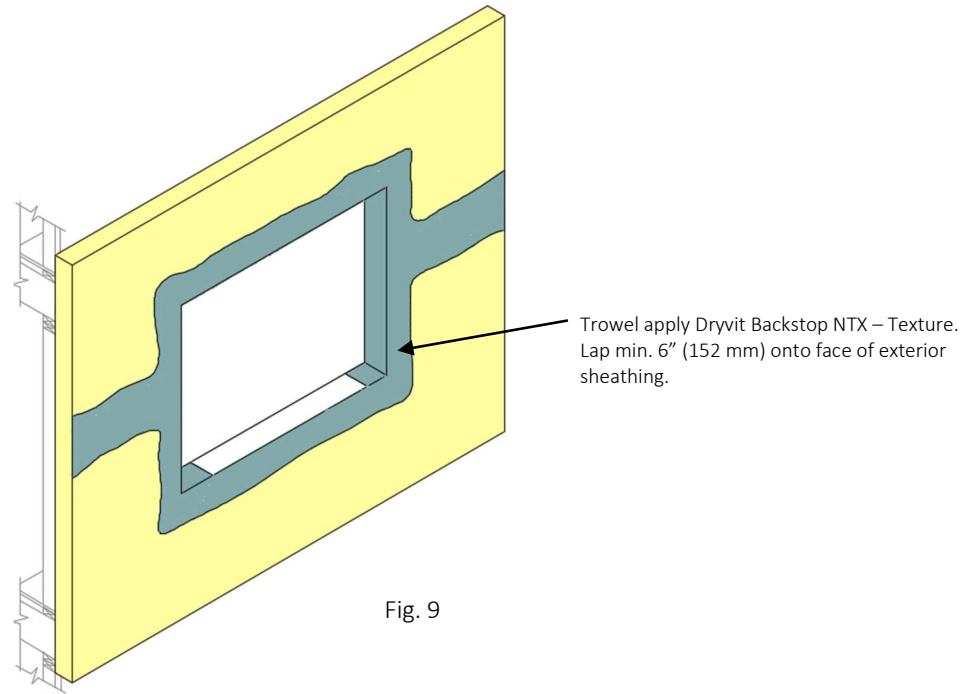


Fig. 9

- 3) Apply Apply Dryvit AquaFlash System at sill in accordance with Sections 4.A.3. **NOTE: AquaFlash System must extend up the jambs a minimum of 4 in (102 mm) – Figure 10.**

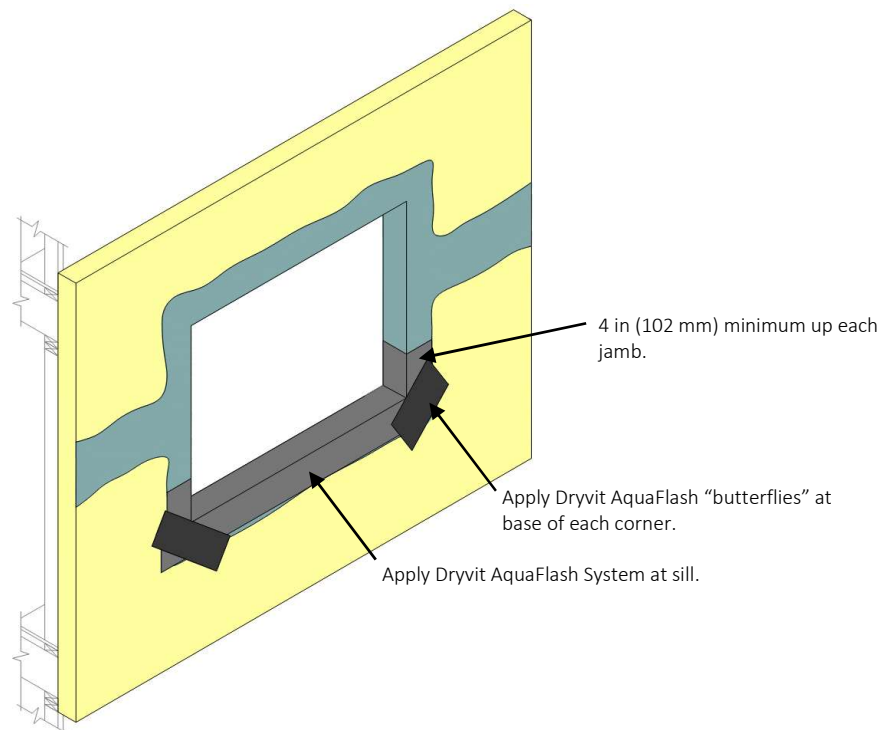


Fig. 10

- 4) Install the specified component (i.e. window, etc.) and associated flashings per manufacturer's directions and contract documents. Then apply Backstop NTX – Texture or Smooth to the remainder of the wall surface as described in Section 7 and lap over the previously installed material around openings – **Figure 11.**

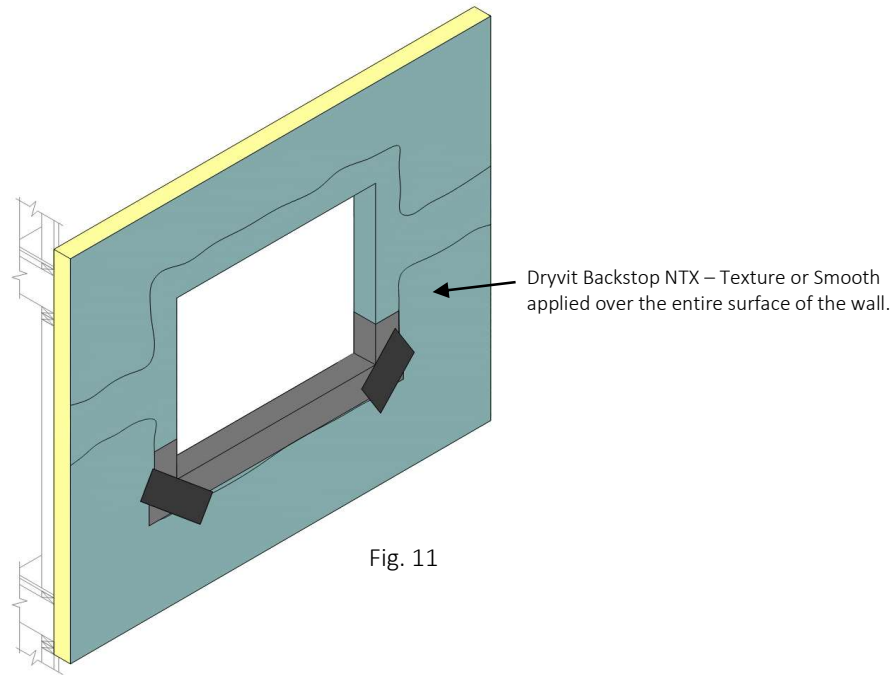


Fig. 11

C. Tremco Dymonic 100 Option – **Figure 12.**

1. Surface Preparation

- a. For Dymonic 100, apply only when air and surface temperatures are from 40 °F (5°C) minimum to 110 °F (43 °C) maximum.
- b. The surface to receive the Dymonic 100 must be clean, dry, smooth and free of any other condition that may affect adhesion.
- a. Remove loose dust or dirt from the surface by wiping with a clean, dry cloth or brush.
- b. Fill any voids or gaps in the rough opening with Dymonic 100

2. Tremco Dymonic 100 Application

- a. Apply a continuous bead of Dymonic 100 sealant in a zigzag pattern or a straight bead around the face of the panel, the sill, jambs and head.
- b. Tool Dymonic 100 sealant over the four corners so that the sealant extends 2" on the inside face of the opening and 2" onto the face of the exterior sheathing. Smooth with a trowel to ensure uniform and complete coverage. Ensure there are no holes or gaps in the sealant and feather it out. Using a mil gauge, ensure that a minimum of 40 wet mils have been applied; if not, reapply sealant to achieve 40 wet mils.

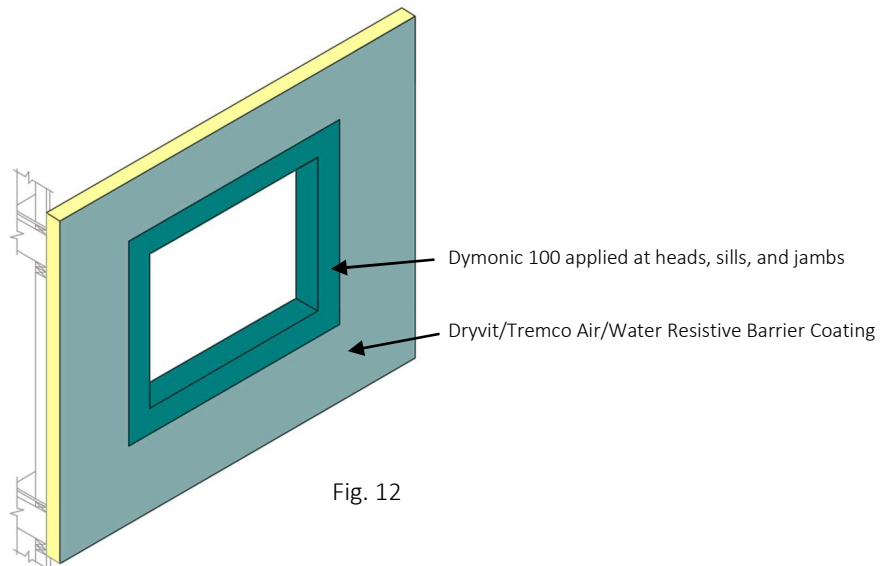


Fig. 12

D. Tremco ExoAir 110AT option.

1. Surface Preparation

- a. For ExoAir 110AT, apply only when air and surface temperatures are from 0 °F (-18 °C) minimum to 110 °F (43 °C) maximum.
- b. The surface to receive the ExoAir 110AT must be clean, dry, smooth and free of any other condition that may affect adhesion.
- c. Remove loose dust or dirt from the surface by wiping with a clean, dry cloth or brush.
- d. Fill any voids or gaps in the rough opening with Dymonic 100.

2. Tremco ExoAir 110AT Application

- a. Cut ExoAir 110AT into bowties/hourglasses or other acceptable shapes and install in all corners. – **Figure 13.**

- b. Cut ExoAir 110AT strips 6" longer than rough opening dimensions.

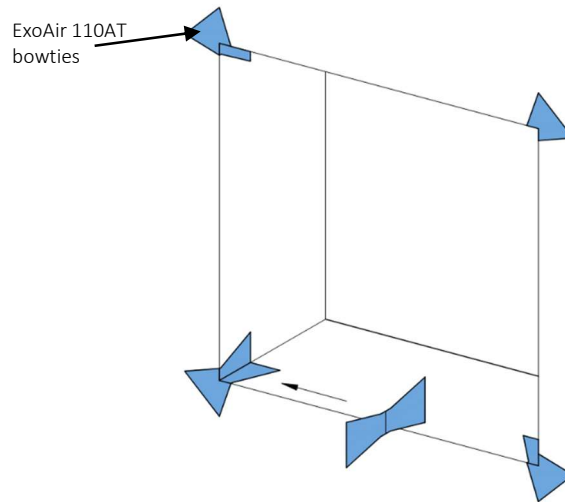


Fig. 13

- c. Install ExoAir 110AT onto the sill 3" minimum into the rough opening and onto exterior wall and extending 3" passed the rough opening on either side. – **Figure 14.**

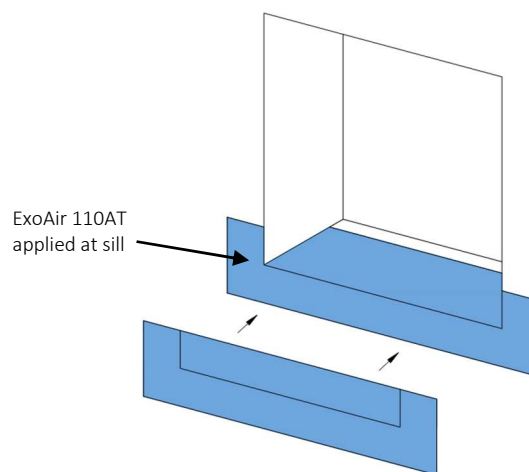


Fig. 14

- d. Install ExoAir 110AT onto the jambs 3" minimum into the rough opening and onto the exterior wall and extending 3" passed the rough opening on either side. – **Figure 15.**

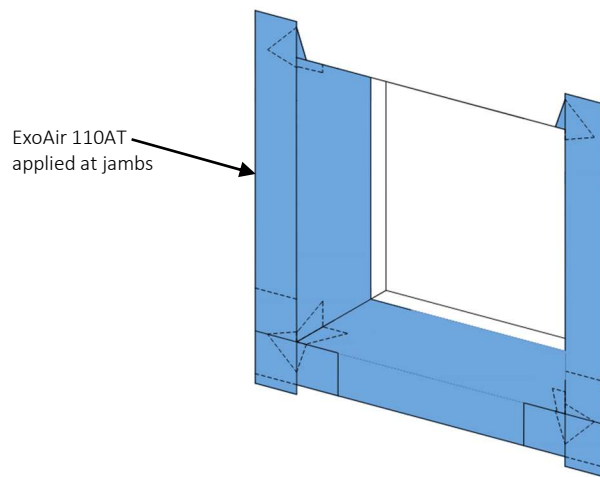


Fig. 15

- e. Install ExoAir 110AT onto the head 3" minimum into the rough opening and onto the exterior wall and extending 3" passed the rough opening on either side. – **Figure 16.**

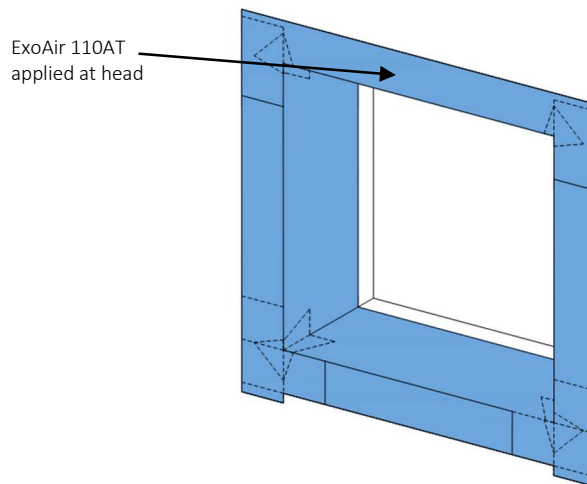


Fig. 16

- f. Apply pressure and roll out all ExoAir 110AT with a J-roller
- g. Apply and tool Dymonic 100 sealant on ExoAir 110AT edges and any other negative laps/skyward facing edges. Dymonic 100 shall extend a minimum $\frac{1}{2}$ " onto both the ExoAir 110AT and the underlying substrate. Using a mil gauge, ensure that a minimum of 40 wet mils have been applied; if not, reapply sealant to achieve 40 wet mils. – **Figure 17.**

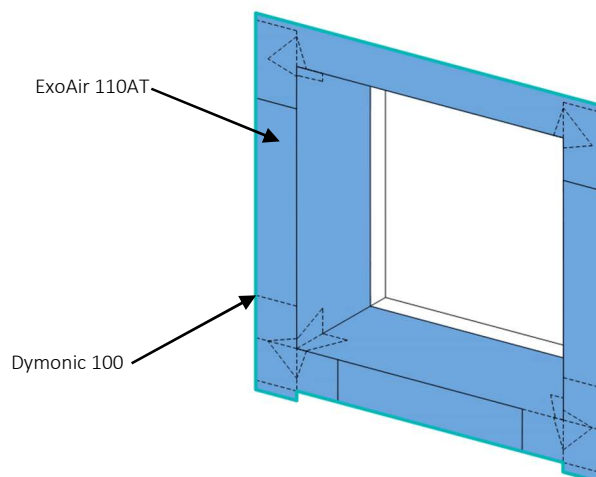


Fig. 17

5. SUBSTRATE EXPANSION JOINT BRIDGING OPTIONS

A. AquaFlash System Option

1. Surface Preparation

- Apply only when air and surface temperatures are from 40 °F (4 °C) minimum to 100 °F (38 °C) maximum.
- The surface to receive AquaFlash System must be clean, dry, smooth and free of any condition that may affect adhesion.
- Clean loose dust or dirt from the surface by wiping with a clean, dry cloth or brush.

2. AquaFlash System Application

- The width of the AquaFlash Mesh must overlap each side of the joint a minimum of 2 in (51 mm) - **Figure 18**.
- Clean the joint to allow for the installation of a backer material. Install a closed cell polyethylene backer rod sized a minimum of 50% larger than the joint width. Install so that the backer rod is recessed or projects a minimum of 1/4 in (6.4 mm) from the wall surface.

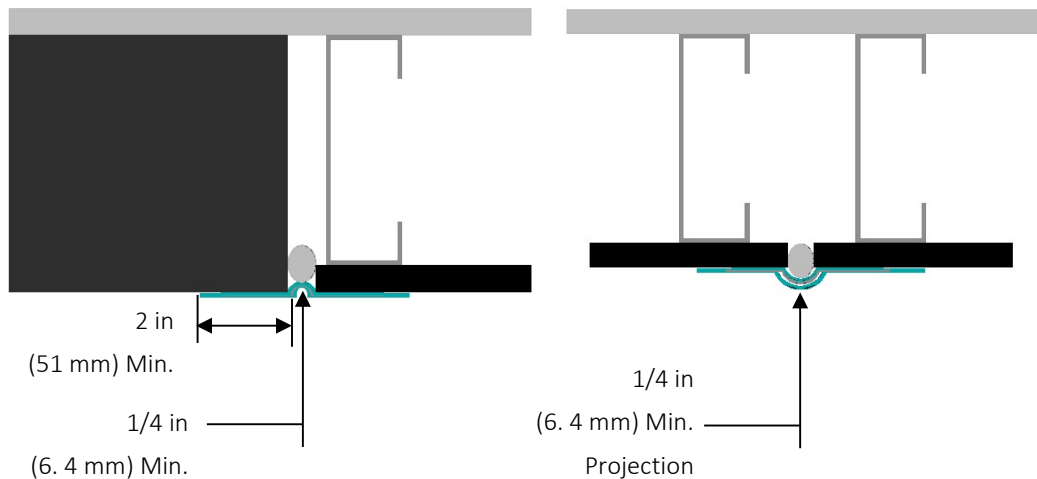


Fig. 18

- Using a brush or 3/4 in (19 mm) nap roller, apply a liberal coat of AquaFlash Liquid material to the backer rod and adjacent substrate surface to the width of the AquaFlash Mesh – **Figure 19**.

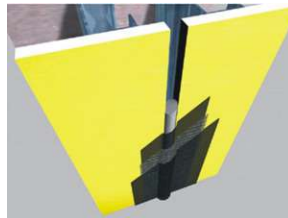


Fig. 19

- Immediately lay the AquaFlash Mesh into the wet material and brush smooth adding additional material to completely embed the mesh.
- Allow material to set for 15 minutes then apply a second liberal coat of AquaFlash Liquid and smooth out to ensure a continuous film free of voids, pinholes, or other discontinuities.

6. Sheathing Joints and Fastener Heads

A. Dryvit Backstop NTX Texture and Grid Tape Option

1. For sheathing substrates, apply the Dryvit Grid Tape along all joints in the sheathing, as well as inside corners, outside corners, and exposed edges at terminations that will not be covered with Dryvit AquaFlash.
2. Center the Dryvit Grid Tape on the sheathing joints, edges, etc. with the pressure sensitive adhesive backing in contact with the sheathing surface. Press into position with hand pressure until adhesion is achieved.
3. Apply only enough Dryvit Grid Tape as can be covered with Backstop NTX – Texture in the same day.
4. Mix the Backstop NTX – Texture material as described in Section 3.B.2. Using a stainless steel trowel or spatula, apply a layer of Backstop NTX – Texture over the Dryvit Grid Tape and spot all fastener heads – **Figure 20. NOTE: Dryvit Grid Tape is not necessary over fastener heads.**

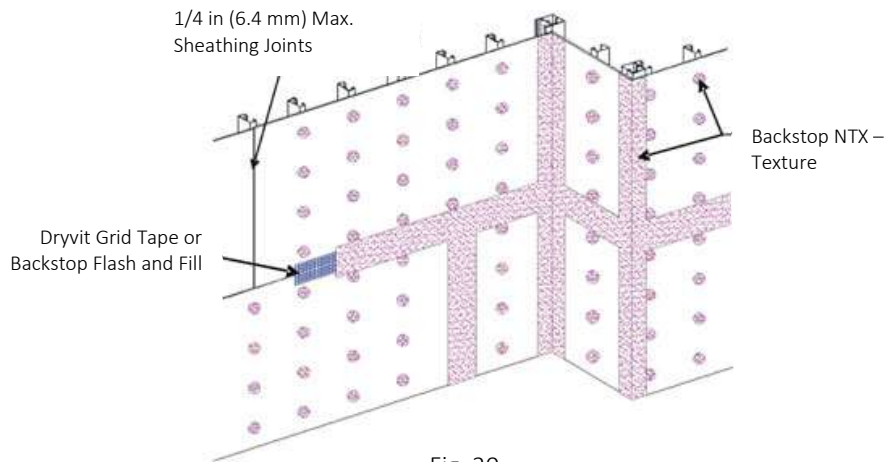


Fig. 20

5. Allow to dry for a minimum of 2 hours or until dry to the touch. **NOTE: Cool, humid conditions may require longer drying times**
 - a. Because of the absorption characteristics, plywood substrates may require a second pass to fill any voids at the sheathing joints. After the first pass has dried, check the joints and spot any voids that may be present with additional Backstop NTX – Texture material and allow to dry.

NOTE: OSB sheathing requires that joints and fasteners be treated with Backstop NTX – Texture. A minimum of two (2) coats of Backstop NTX – Smooth are required for the field of the wall. Backstop NTX – Texture is not recommended for application in the field of the board.

B. Tremco Dymonic 100 Option – **Figure 21.**

6. All fastener heads shall be detailed after installation with minimum 40 mils and 3/4" minimum diameter quantity of Dymonic 100 sealant.
7. For in plane board joints apply and tool Dymonic 100 sealant ensuring minimum overlap of 3/4" onto each panel at a 40 mils thickness. For intersections of vertical and horizontal board joints, caution should be taken to not remove or disturb existing sealant when overlapping. Feather sealant on horizontal joints out onto panel.

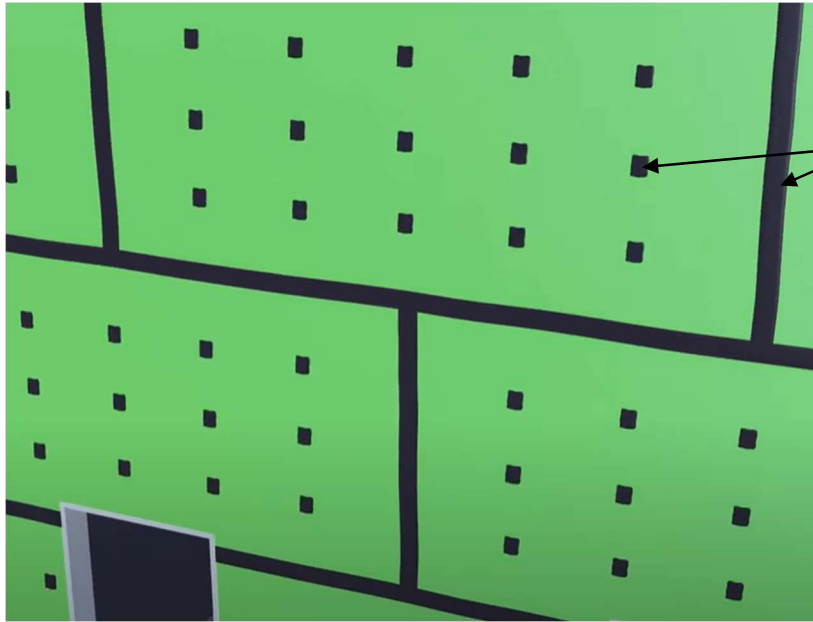


Fig. 21

8. For inside corners, install minimum 1/2" wide bond breaker tape centered on joint (**NOTE: Bond breaker tape is not required when no movement is anticipated**). Ensure that the tape is pressed into the corner such that it folds and forms into the corner – **Figure 22**. Apply 1/2" bead of Dymonic 100 sealant bead over bond breaker tape – **Figure 23**. Tool to achieve cove bead, minimum 3/4" bond beyond edge of bond breaker tape to panel surface on each side of joint – **Figure 24**.

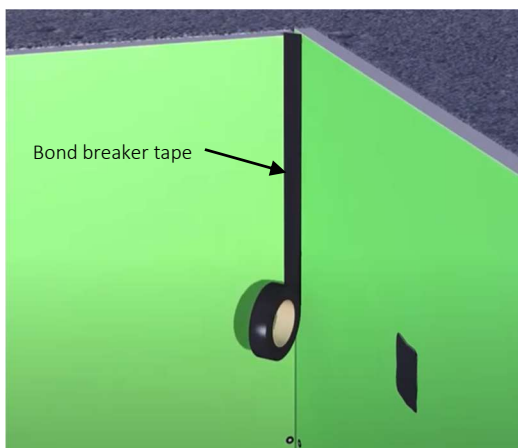


Fig. 22



Fig. 23



Fig. 24

9. For outside corners, apply a continuous bead of Dymonic 100 sealant in a zigzag pattern or a straight bead on each side of the joint – **Figure 25**. Tool or trowel Dymonic 100 sealant over the corner joint so that sealant grips sheathing a minimum of 1" on both sides – **Figure 26**. Ensure there are no holes or gaps in the sealant and feather it on both sides using a spatual or trowel. Using a mil gauge, ensure that a minimum of 40 wet mils have been applied; if not, reapply sealant to achieve 40 wet mils.



Fig. 25

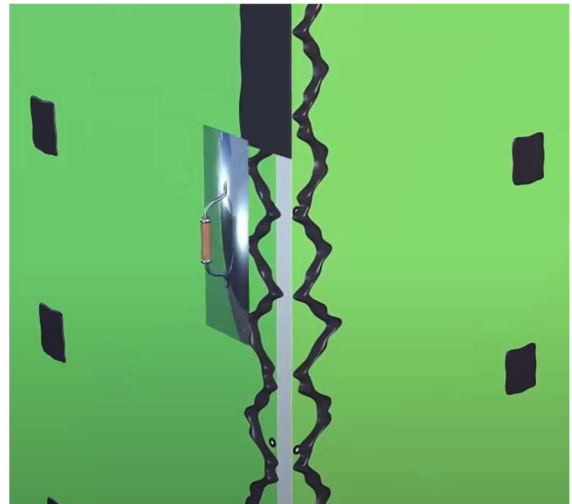


Fig. 26

7. AIR/WATER-RESISTIVE BARRIER APPLICATION

A. Backstop NTX Design Requirements

1. For Backstop NTX, ensure that the wall surface and ambient temperature are from 25 °F (-4 °C) minimum to 100 °F (38 °C) maximum at the time of Backstop NTX application. **WARNING: Do not apply the Dryvit materials in the rain. The underlying wall materials and substrate surface must be dry prior to applying the air/water-resistive barrier.**

2. Sheathing Substrates

- a. Prior to applying the Backstop NTX over a sheathing substrate, check to ensure that:

- 1) The sheathing is of a type listed in the Outsulation Mineral Wool System Specification, DS982.
- 2) The sheathing is structurally sound, free of loose material, voids, projections or other conditions that may interfere with the installation of the Outsulation Mineral Wool System .
- 3) The sheathing is clean, dry, and free of grease, oil, paint and other foreign material.
- 4) Exterior grade gypsum sheathing shall not show signs of deterioration and facer shall be firmly bonded to the core.
- 5) Plywood or OSB moisture content shall not exceed 19% as measured by a probe type moisture meter.

- 6) There are no planar irregularities greater than 1/4 in (6.4 mm) within any 4 ft (1.2 m) radius.
SHEATHING WITH GAPS OR DAMAGE EXCEEDING 1/4 in (6.4 mm) IN ANY ONE DIRECTION MUST BE REPLACED. NOTE: Notify the general contractor and/or architect and/or owner of all discrepancies. Do not proceed until all unsatisfactory conditions have been corrected.
NOTE: OSB sheathing requires that joints and fasteners be treated with Backstop NTX – Texture. Two (2) coats of Backstop NTX-Smooth are required for the field of the wall. Backstop NTX-Texture is not recommended for application in the field of the board.

3. Concrete or Masonry Substrates

NOTE: Backstop NTX – Texture or Backstop NTX – Smooth are recommended for use over concrete and masonry.

- a. Prior to applying the Backstop NTX – Texture or Backstop NTX – Smooth over a concrete or masonry substrate, check to ensure that:
 - 1) All cracks are repaired using appropriate procedures and materials.
 - 2) The substrate is structurally sound, free of loose material, voids, projections or other conditions that may interfere with the installation of the Outsulation Mineral Wool System .
 - 3) The substrate is clean, dry, free of grease, oil, paint, form release agents, efflorescence and other foreign materials that may affect adhesion.
 - 4) There are no planar irregularities greater than 1/4 in (6.4 mm) within any 4 ft (1.2 m) radius.

BACKSTOP NTX (BSNTX) – TEXTURE, SMOOTH, AND SPRAY USAGE/APPLICATION CHART

			APPROX. COVERAGE PER PAIL	APPROX. COVERAGE PER DRUM
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EXTERIOR GRADE GYPSUM SHEATHING

Joints ^a	BSNTX-Texture	Trowel	300 lin. ft. (91 m)	
	BSNTX Smooth	Trowel or Spray	800 ft ² (75 m ²)	
	Dymonic 100	Putty Knife	308' of joint per gallon for a 1/4" x 1/4" (6 mm x 6 mm) joint	
	Backstop Flash and Fill	Putty Knife	20 oz (.59 l) SSG covers 15 - 17 ft ² (1.39 - 1.58 m ²) at 12 - 15 wet mils (0.30 – 0.38 mm)	
Face ^e	BSNTX Texture	Trowel, FoamPRO #58 Roller ^b , or Texture Sprayer	250-300 ft ² (23-28 m ²)	
	BSNTX- Smooth ^{c,g}	1/2 in (12.7 mm) Nap Roller or	800 ft ² (75 m ²)	
		Airless Spray	500-600 ft ² (46-56 m ²)	5,000-6,000 ft ² (465-557 m ²)

FIBERGLASS FACED EXTERIOR GYPSUM SHEATHING

Joints ^a	BSNTX Texture	Trowel	300 lin. ft. (91 m)	
	BSNTX Smooth	Trowel	650 ft ² (60 m ²)	
Face ^e	BSNTX Texture	Trowel or Texture Sprayer	250-300 ft ² (23-28 m ²) [includes joints]	
	BSNTX- Smooth ^{c,g}	3/4 in (19 mm) Nap Roller or	400 ft ² (X m ²)	
		Airless Spray	500-600 ft ² (46-56 m ²)	5,000-6,000 ft ² (465-557 m ²)

EXPOSURE 1, EXTERIOR GRADE, AND FIRE RETARDANT TREATED PLYWOOD; AND EXTERIOR CEMENT BOARD

Joints ^a	BSNTX Texture	Trowel	300 lin. ft. (91 m)	
	BSNTX Smooth	Trowel	650 ft ² (60 m ²)	
Face ^{ei}	BSNTX Texture	Trowel, FoamPRO #58 Roller ^b or Texture Sprayer	250-300 ft ² (23-28 m ²)	
	BSNTX Smooth ^{c,g}	1/2 in (12.7 mm) Nap Roller or	650 ft ² (60 m ²)	
		Airless Spray	500-600 ft ² (46-56 m ²)	5,000-6,000 ft ² (465-557 m ²)

APA EXPOSURE 1 RATED ORIENTED STRAND BOARD (OSB)

Joints ^a	BSNTX Texture	Trowel	300 lin. ft. (91 m)	
	BSNTX Smooth	Trowel	650 ft ² (60 m ²)	
Face ^e	BSNTX - Smooth ^g	1/2 in (12.7 mm) Nap Roller or	350-400 ft ² (33-37 m ²)	
		Airless Spray		3,500-4,000 ft ² (325-372 m ²)

CONCRETE AND MASONRY^{d,g}

Face	BSNTX Texture	Trowel ⁱ	200-250 ft ² (19-23 m ²) ^f	
	BSNTX Texture	FoamPRO #58 Roller or Texture Sprayer	200-250 ft ² (19-23 m ²) ^f	
	BSNTX Smooth ^g	Airless Spray	300-500 ft (28-46 m ²)	3,000-5,000 ft (279-465 m ²)

- a Tape the joints with Dryvit Grid Tape when using BSNTX Texture and with Aquaflash Mesh when using Backstop NTX Smooth – BSNTX Texture at screw heads.
- b Up to 1 pint (16 oz) of water may be added to a 60 lb pail of Backstop NTX Texture for roller or spray applications only. The FoamPRO #58 roller cover (FoamPRO Mfg., Inc., www.foampromfg.com) is available at home supply stores.
- c Due to variations in types of concrete/masonry, apply a 6 ft x 6 ft test area with coverage as indicated in the chart, before proceeding with the entire job. If there are voids in the substrate, particularly at the mortar joints, the job should be parged with Genesis®, 24 hours prior to BSNTX Texture application. Backstop NTX shall NOT be used as a skim coat for parging CMU joints or heavy textured units.
- d Backstop NTX Texture (with up to 1 pint water addition per 60 lb. pail) or Smooth may be sprayed and backtrowelled/backrolled.
- e Coverage may vary depending on the texture and porosity of the substrate. Coverage assumes a smooth, dense surface.
- f Backstop NTX should be applied at the recommended coverage rates to form a continuous film free of voids, pinholes or other discontinuities. The following approximate mil thicknesses are recommended:
- | | | |
|----------------------|--------|---------|
| Backstop NTX Texture | 13 DFT | 20* WFT |
| Backstop NTX Smooth | 9 DFT | 14* |

*Based on volume solids

Refer to Product Data Sheets for Complete Mixing and Application Instructions

1. Dryvit Backstop NTX – Texture Application

NOTE: Backstop NTX Texture is NOT recommended for use over the face of OSB.

- a. General: Backstop NTX – Texture can be applied using a roller, trowel or texture spray equipment over the listed substrates, as noted in the usage chart above. Backstop NTX – Texture should be applied at the recommended coverage rate to achieve a continuous film at a minimum dry film thickness of approximately 13 mils (0.3).

- 1) Allow to dry for a minimum of 2 hours or until dry to the touch.

NOTE: Cool, humid conditions may require longer drying times

- a) Because of the absorption characteristics, plywood substrates may require a second pass to fill any voids at the sheathing joints. After the first pass has dried, check the joints and spot any voids that may be present with additional Backstop NTX – Texture material and allow to dry.

2. Roller Application

- a. Use a coarse, open-cell foam roller cover with a 3/8 in (9.5 mm) foam nap (FoamPRO #58 roller). Apply a uniform, continuous film of Backstop NTX – Texture over the entire surface of the sheathing, concrete or masonry, including the previously treated areas – **Figure 27**.

NOTE: If the roller pulls material back out of the sheathing joints, it indicates that the joint material is not sufficiently dry.

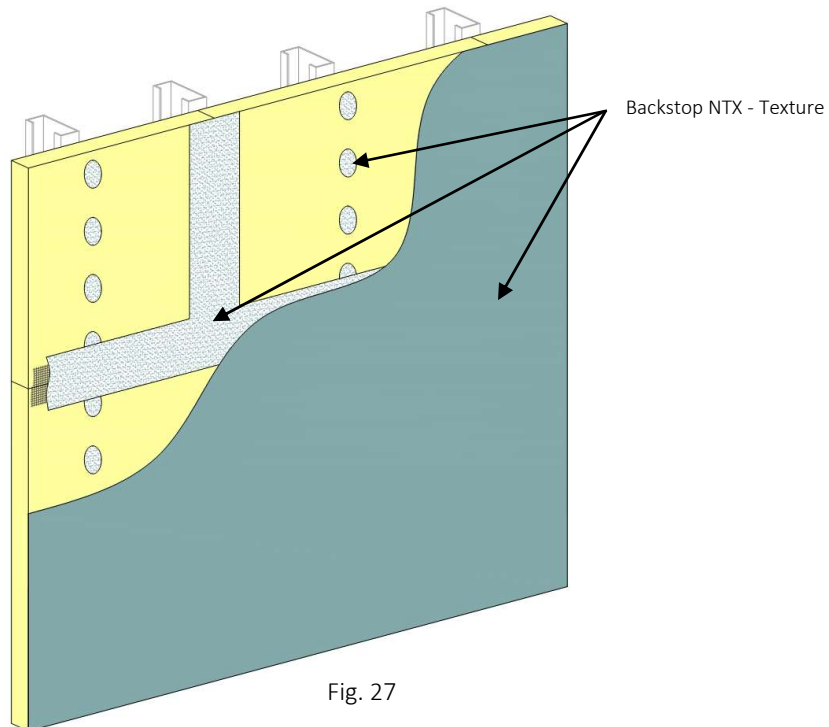


Fig. 27

- b. For concrete and masonry, ensure that a continuous film of uniform thickness is applied across the entire surface and across mortar joints. Minimum two (2) coats are required allowing a minimum of two (2) hours between coats. Cool, damp weather may require longer time between coats.
 - c. While the Backstop NTX – Texture is still wet, using a trowel or spatula, smooth out the Backstop NTX – Texture around all window and door perimeters.
 - d. The Backstop NTX – Texture material should be applied in a uniform, continuous film at the recommended coverage rate. **NOTE: Substrates with a surface texture or high porosity will require additional material.**

3. Trowel Application

- 1) Spotting of fasteners is not necessary when applying Backstop NTX – Texture using a trowel. Allow to dry for a minimum of 2 hours or until dry to the touch.

- 2) Using a stainless steel trowel, apply a continuous coating of Backstop NTX – Texture material onto the entire surface. The material should be applied at a smooth, uniform, continuous film approximately equal to the thickness of the aggregate.
4. Spray/Back-Rolling Application
- 1) Using a hand held hopper gun or other suitable texture spray equipment; spray a layer of Backstop NTX – Texture onto the wall surface. Using a coarse, open-cell foam roller cover with a 3/8 in (9.5 mm) foam nap (FoamPro #58 roller), roll the material to create a smooth continuous film.
NOTE: If the roller pulls material back out of the sheathing joints, it indicates that the joint material is not sufficiently dry.
 - 2) Because of the absorption characteristics, plywood substrates may require a second pass to fill any voids at the sheathing joints. After the first pass has dried, check the joints and spot any voids that may be present with additional Backstop NTX – Texture material and allow to dry.
 - 3) While Backstop NTX – Texture is still wet, using a trowel or spatula, smooth out the Backstop NTX – Texture around all window and door perimeters.
 - 4) Backstop NTX – Texture material should be applied in a uniform, continuous film at the recommended coverage rate.
NOTE: Substrates with a surface texture or high porosity will require additional material.
- e. Allow the Backstop NTX – Texture to completely dry prior to installation of the Outsulation Mineral Wool System .
5. Backstop NTX – Smooth Application
- a. General: Dryvit Backstop NTX – Smooth can be applied using a roller or sprayed and back-rolled over the acceptable sheathing substrates. **NOTE: OSB sheathing requires that joint and fasteners be treated with Backstop NTX – Texture. A minimum of two (2) coats of Backstop NTX – Smooth are required for the field of the wall. Backstop NTX – Texture is not recommended for application in the field of the board.**
 - b. Roller Application
 - 1) Using the appropriate nap roller (see Usage Application Chart), apply the Backstop NTX – Smooth over the entire wall surface, including previously treated joints. **NOTE: If the roller pulls material back out of the sheathing joints, it indicates that the joint material is not sufficiently dry.**
 - 2) Backstop NTX – Smooth material should be applied in a uniform, continuous film at the recommended coverage rate – **Figure 28**. **NOTE: Sheathing substrates with a surface texture or high porosity will require additional material.**

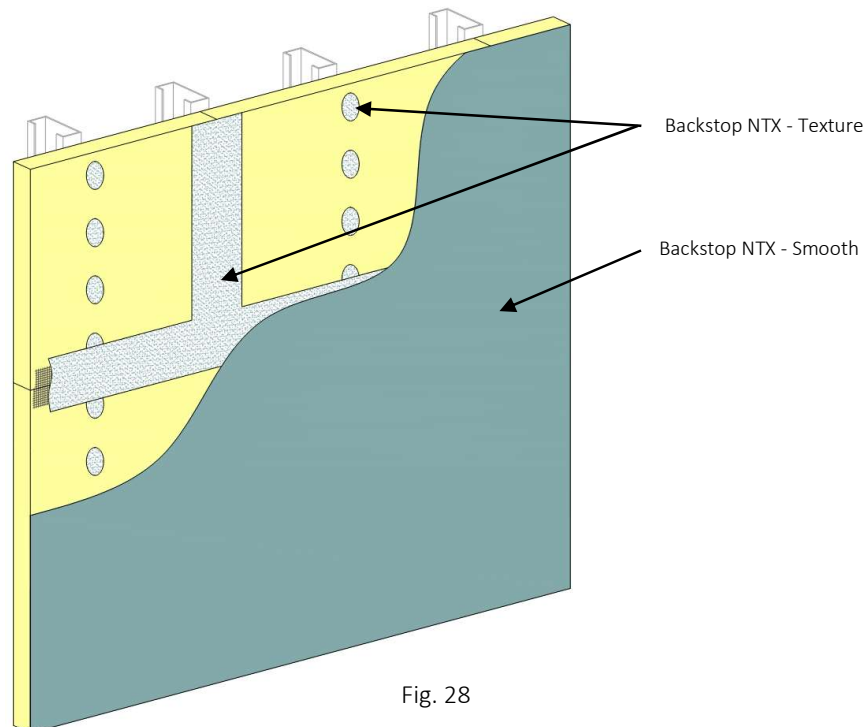


Fig. 28

- c. Spray/Back-Rolling Application
 - 1) Backstop NTX – Smooth may be applied to the wall using spray equipment and back-rolled using the appropriate nap roller (see Usage Application Chart).
 - 2) Allow the Backstop NTX – Smooth to completely dry. Check the wall to ensure that the Backstop NTX – Smooth is continuous and spot any visible voids with additional Backstop NTX – Smooth material.
- 6. ExoAir 230/230LT Application – **Figure 29.**
 - a. General: ExoAir 230/230LT can be applied using a roller or sprayer.
 - b. Roller Application
 - i. Using a minimum $\frac{3}{4}$ in (19 mm) nap roller, apply the ExoAir 230/230LT at 48 wet mils to exterior glass-mat sheathing and 70 wet mils to porous substrates to achieve a minimum 25 dry mils over the entire wall surface, including previously treated joints.
 - ii. Refer to the ExoAir 230/230LT Application Instructions for additional information.
 - c. Spray Application
 - i. Using the appropriate spray equipment, apply the ExoAir 230/230LT at 48 wet mils to exterior glass-mat sheathing and 70 wet mils to porous substrates to achieve a minimum 25 dry mils over the entire wall surface, including previously treated joints.
 - ii. Refer to the ExoAir 230/230LT Application Instructions for additional information.
 - iii. Refer to Tremco Fluids Spraying Guide for specific pump and spray application recommendations.



Fig. 29

8. ACCESSORIES

Install Pre-Based Starter Boards in accordance with Dryvit document DS854.

A. INSULATION BOARD INSTALLATION

A. System Terminations

1. Attach Detail Mesh around the perimeter of all openings, penetrations, and other system terminations by stapling or applying a ribbon of adhesive mixture on the substrate and embedding the Detail Mesh into the wet mixture.

2. Position the Detail Mesh so that a minimum of 2 1/2 in (64 mm) will extend onto the face of the insulation board. Keep the mesh, which is not embedded, clean.

B. Inspection of the Insulation Board

1. Prior to installing the insulation board, it shall be checked to ensure that:
 - a. It is ROCKWOOL Frontrock® Insulation Board and shall be obtained from Dryvit or its authorized distributors.
 - b. The insulation board pieces shall be delivered in 2 ft (0.6 m) widths by 4 ft (1.2 m) lengths with a minimum thickness of 1.5 in (38 mm) for the ROCKWOOL Frontrock® Mono-Density board, or 2.5 in (63.5 mm) for the ROCKWOOL Frontrock® Mineral Wool Dual-Density Board.
 - c. The insulation board complies with ASTM C612 Type IVA.
 - d. Any damaged ROCKWOOL Frontrock® Mineral Wool insulation boards should be replaced prior to installation.
 - e. Trim edges of boards with serrated insulation knife or sharp trowel to fit substrate.

C. Methods of Applying the Dryvit Adhesive

1. Mix the Dryvit adhesive, Genesis, in accordance with Section 3.C
 - a. Notched Trowel Method
 - i. With a notched trowel, 3/8 in (9.5 mm) wide, 1/2 in (12.7 mm) deep notches spaced 1 1/2 in (38 mm) 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 beads. **NOTE: Apply the adhesive so that the ribbons run vertically when the insulation board is placed on the wall.**

D. Insulation Board Installation

1. Prior to installing the insulation board, ensure that the surface of the Air/Water Resistive Barrier is uniform in thickness, continuous, clean, dry and free of any foreign materials that may affect adhesion of the insulation board.
2. When sheathing is used as a substrate, use an 8 in (203 mm) high by 4 ft (1.2 m) long piece of insulation board as a starter row at the base of the wall. This will help minimize the insulation board joints from coinciding with the sheathing joints. Offset the insulation board joints from the sheathing joints a minimum of 8 in (203 mm) in both vertical and horizontal directions. Install the insulation boards with their long edges oriented horizontally.
3. Apply the adhesive to the insulation board as described in Section VIII.C.
 - a. Butter the edge of the insulation board at all terminations in order to properly embed the previously installed Detail Mesh used for back wrapping. Back wrapping is necessary to provide appropriate fire performance and to create 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. When dual density insulation is used, ensure that the high-density side faces outward as identified by the branding “This Side Out” – **Figure 30.**

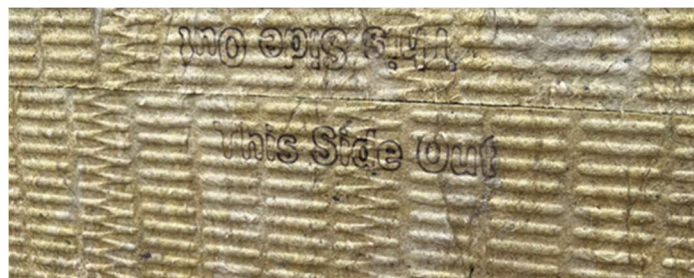


Fig. 30

5. Position the insulation board horizontally on the substrate. Press the board gently to the substrate and slide it into position. 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 board joints are butted tightly and faces are level and flush. **CAUTION: Do not allow adhesive to remain in board joints.**
7. In-field backwrapping
 - a. Butter the edge of the insulation board at all terminations in order to properly embed the previously installed Detail Mesh used for back wrapping. Back wrapping is necessary to provide appropriate fire performance and to create 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.**
8. Mechanical Fasteners
 - a. Allow vertical ribbons of adhesive to sufficiently dry/harden to resist flattening, disruption of bond formation and disruption of drainage cavities behind the mineral wool insulation boards, prior to installation of mechanical fasteners (12-24 hours). Mechanical Fasteners may be initially installed to support the insulation board while the adhesive cures and then permanently installed. **CAUTION: DO NOT BACK-OUT, REMOVE AND/OR RELOCATE FASTENERS leaving open penetrations through the underlying air/water-resistive barrier/substrate. Fasteners must be installed into stud framing or light gauge strapping beyond. If light gauge strapping is used, thickness must match that of studs.**
 - b. Install fasteners per Outsulation Mineral Wool System Installation details, DS983. Fasteners along outside corners and other system terminations shall be spaced not more than 8 in (203 mm) apart. Fasteners shall be either surface flush or countersunk based on insulation thickness, underlying wall assembly/substrate type and tested negative wind load results listed in DS983. Select screw fastener type and coordinate for length and penetration into wall assembly/substrate based on specific project requirements. Combine with Washer Plate type as required or indicated. Fasteners must all be installed prior to the reinforcing mesh and base coat. **NOTE: Do not overdrive the fasteners or have them projecting above the surface of the insulation board.**
9. Install subsequent rows of insulation board in a running bond pattern (vertical joints staggered).
10. With factory edges exposed, stagger vertical joints at inside and outside corners. Make sure the corners are straight and plumb.
11. If for any reason the insulation board joints are not butted tightly, ALL GAPS GREATER THAN 1/16 in (1.6 mm) MUST BE SLIVERED.
12. Windows, Doors, Mechanical Equipment and Wall Penetrations
 - a. At openings, align the insulation boards so that the edges (vertical and horizontal joints) do not coincide with the corners of the opening (refer to Dryvit Outsulation Mineral Wool System Installation Details, DS983).
 - b. Attach Detail Mesh around the perimeter of the opening as described in Section VIII.A.
 - c. Hold the insulation board back $\frac{3}{4}$ " 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 Mineral Wool System Installation Details, DS983.
13. Expansion Joints
 - a. Expansion joints are recommended every 30 ft in this system.
 - b. Attach Detail Mesh around the perimeter of the opening as described in Section VIII.A.
 - c. When abutting dissimilar materials, leave a minimum $\frac{3}{4}$ in (19 mm) separation between the insulation board and abutting material to allow for differential movement, proper system edge preparation and sealant installation.
 - d. When the Outsulation Mineral Wool System is installed at a substrate transition, leave a minimum $\frac{3}{4}$ in (19 mm) separation between the insulation boards to allow for differential movement, proper system edge preparation and sealant installation.
14. 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 Genesis material mixture to the face (and edge if not previously coated) of the insulation board and embed the Detail Mesh in the wet mixture.

15. Aesthetic Reveals

- a. To install an aesthetic reveal, snap a straight line using a chalk line to mark the position.
- b. 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). **CAUTION: The thickness of the insulation board at the base of the reveal must not be less than 1.5 in (19 mm).**
- c. Use Detail Mesh to ensure continuity of reinforcing mesh through aesthetic reveals continuing a minimum of 2 1/2 in (64 mm) on each side of the reveal.
 - 1) Apply the base material mixture in the reveal and on the adjacent insulation board surfaces.
 - 2) Embed the Detail Mesh into base coat mixture on one side of the reveal only.
 - 3) 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.
 - 4) 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.
 - 5) 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.

16. 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.
17. 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 31**.

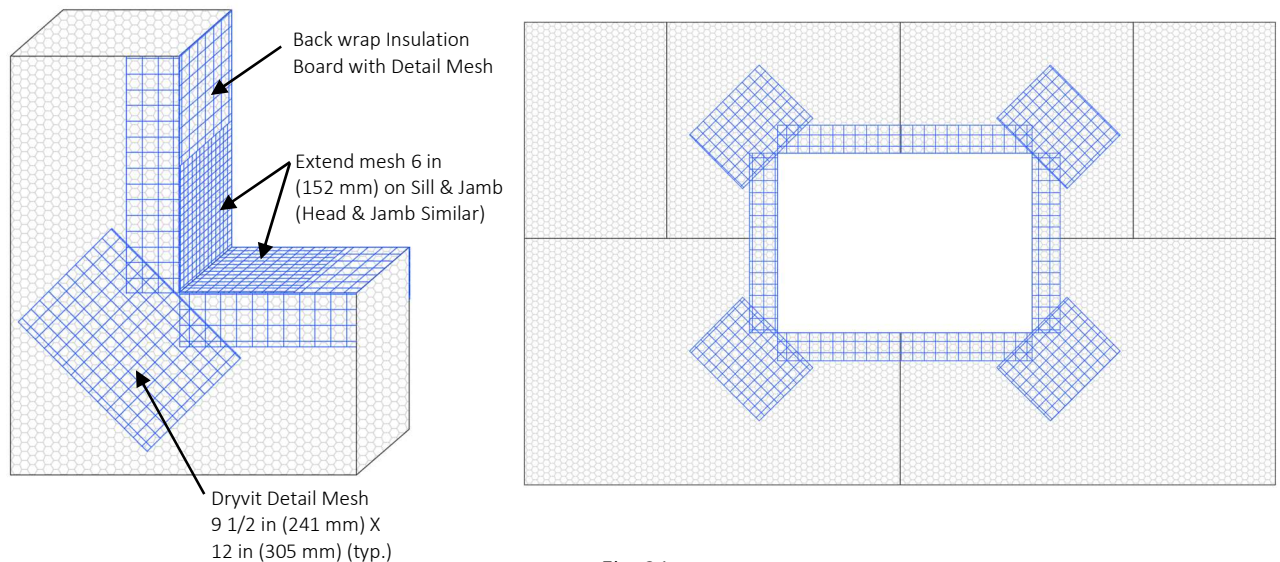


Fig. 31

18. In Field Starter Boards should be fabricated in accordance with the details shown in DS983.
 - a. Refer to DS983 detail OMW 8 for pre-fabricated starter board geometry, vent location, and installation. 1/2-inch masking tape may be used to temporarily cover reinforcing mesh where vent opening is illustrated. When using the double-pass method for base coat installation (see section IX.E.1.c on the following page), do not install base coat at the vent location on the first pass. Install masking tape over the vent location prior to the second pass. Once the base coat is installed, remove the masking tape to clear base coat from the vent opening while base coat is still wet.

B. INSTALLATION OF REINFORCING MESH AND BASE COAT

A. General

1. **Do not apply the Dryvit materials in the rain. The insulation board must be dry prior to applying the base coat material.**
2. Prior to installing the reinforced base coat, inspect the surface of the insulation board for:
 - a. Flatness: Use a minimum 8 ft (2.4 m) straight edge to check for flatness.
 - b. Damage and foreign materials: correct deficiencies as necessary.
 - c. The face of the ROCKWOOL Frontrock™ Mineral Wool insulation board is not to be shaved or rasped but instead use base coat to level the substrate as required.
 - d. Hollow areas may be filled with up to 1/8" maximum of base coat.

B. Mix the Genesis base coat material as described in Section III.C.

C. Prior to installing the reinforcing mesh, it should be inspected to ensure that it has been furnished by Dryvit .

1. Dryvit reinforcing mesh is available in the following widths and lengths:
 - a. Standard Plus, and Intermediate - 48 in x 150 ft (1.2 m x 45.7 m)
 - b. Panzer 15 - 48 in x 75 ft (1.2 m x 22.9 m)
 - c. Panzer 20 - 48 in x 75 ft (1.2 m x 22.9 m)
 - d. Corner - 9 1/4 in x 150 ft (235 mm x 45.7 m)
 - e. Detail - 9 1/2 in x 150 ft (241 mm x 45.7 m)

2. It shall be colored blue for product identification bearing the Dryvit logo.

3. Corner bead accessory, by others, where detailed or specified.

D. Where specified or required Dryflex may only be used as a skim coating at grade or sloped surfaces.

1. Allow the Dryflex to cure a minimum of 24 hours or until dry.
2. Color variation may occur between Dryflex and Genesis Base Coat areas. The use of Color Prime is recommended where this condition occurs.

E. Base Coat Application

1. Standard Base Coat (single layer of Standard Plus or Intermediate Reinforcing Mesh)
 - a. Spot all fastener heads with Genesis mixture base material so they are flush with the surrounding insulation board surface, and allow to set until firm to the touch.
 - b. The base coat shall be applied using the double pass method such that the reinforcing mesh is fully embedded and the Genesis mixture applied at the recommended coverage of 120 sf/ pail (11.1m²).
 - c. Double pass method
 - 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 approximately 1/8 in (3.2 mm) to 3/16 in (4.7 mm). 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. **NOTE: The reinforcing mesh shall be continuous at corners and mesh edges lapped not less than 2 1/2 in (64 mm). Do not lap the reinforcing mesh within 8 in (203 mm) 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 set up until firm to the touch. Trowel a second coat of the base coat mixture over the first coat to fully cover the reinforcing mesh – **Figure 32**. The result should be such that the reinforcing mesh is embedded in the middle of the base

coat by thickness and the total thickness of the base coat does not exceed 3/16". 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.

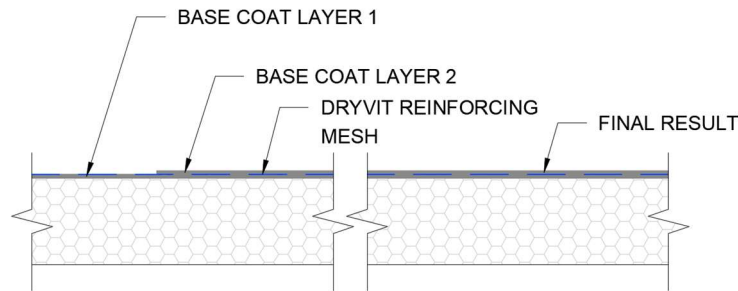


Fig. 32

- 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.
2. Panzer Mesh Base Coat (Panzer 15 or Panzer 20 used in conjunction with 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. Spot all fastener heads with Genesis mixture base material so they are flush with the surrounding insulation board surface, and allow to set until firm to the touch.
 - b. 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 1/8 in (3.2 mm).
 - c. 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.
 - d. 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.
 - e. Protect completed work from water penetration and runoff.
 - f. Allow the Panzer base coat to cure a minimum of 24 hours prior to applying Dryvit's Standard Plus Reinforcing Mesh.
 - g. Apply the second layer of reinforcing mesh in accordance with Section IX.E.1.c. Offset the edges of the Standard Plus Reinforcing Mesh from the edges of the Panzer Mesh a minimum of 8 in (203 mm). **Tip: If Panzer Mesh is installed horizontally, we recommend the Standard Plus Mesh be installed vertically and vice versa.**

C. SEALANT JOINT PREPARATION

- A. All Outsulation Mineral Wool base coat surfaces which will be in contact with sealant must be coated with either Color Prime or Demandit Smooth. In the event sealant is to be adhered to the EIF system base coat surface, refer to Dryvit document DS153.

D. 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. Mix Dryvit Primers to a smooth homogeneous consistency in accordance with Section III.E.

E. DRYVIT FINISH

- A. 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.
- 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 finish.**
- C. General
 - 1. 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 18 in (458 mm) 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.
 - 2. Do not apply Dryvit materials in the rain. The base coat must be dry prior to applying the Dryvit finish or coatings.
- D. Do not apply textured Dryvit finish material in sealant joints.
- E. Application
 - 1. Mix the Dryvit finishes as described in Section III.
 - 2. Quarzputz, Quarzputz E, Sandblast, Weatherlastic Quarzputz
 - a. 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.**
 - b. 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, Weatherlastic Sandpebble Fine.

- a. Using a clean, stainless steel trowel, apply an even coat of the finish to a thickness slightly thicker than the largest aggregate size.
 - b. Pull across using a horizontal trowel motion to develop a uniform thickness no greater than the largest aggregate of the material.
 - c. 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. Using a clean, stainless steel trowel, apply the Freestyle finish on the base coat in a thickness not greater than 1/16 in (1.6 mm). The texture is either pulled out of this base to a thickness of no greater than 1/4 in (6.4 mm) 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 1/4 in (6.4 mm).**
- 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. Using a stainless steel trowel, apply a coat of Weatherlastic Adobe approximately 1/16 in (1.6 mm) to the wall surface. Allow the Weatherlastic Adobe finish to take-up.
 - c. Using a stainless steel trowel, apply a second coat of Weatherlastic 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. Specialty Finishes: Ameristone, DS142; Stone Mist, DS420; TerraNeo, DS481; Custom Brick, DS154; NewBrick, DS871..
 - a. Mix the Specialty finishes as described in Section III.G
 - b. Apply the specialty finishes in accordance with the products' Application Instructions or Data Sheets listed above.

F. COATINGS AND SEALERS

- A. Mix coatings and sealers to a smooth homogeneous consistency in accordance with Section III.H.1.
- B. Demandit Smooth and Weathercoat
 - 1. Apply with a brush, roller, or airless spray equipment.
 - 2. When applying with a roller, a maximum 3/4 in (19 mm) nap, polyester or polyester blend with nylon or lambswool, with beveled ends and a phenolic core is recommended. An 18 in (458 mm) wide roller frame with a 2 1/4 in (57 mm) inside diameter is also recommended.
 - 3. 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.**
 - 4. Do not allow Demandit Smooth or Weathercoat to dry on roller covers. Roller covers with dried coating do not apply the coating evenly.
 - 5. Changing color requires the application of two coats.
- C. Demandit Sanded
 - 1. Apply the Demandit Sanded with a brush or 1/2 in - 5/8 in (12.7 mm – 15.9 mm) nap roller.
 - 2. Roll or brush in multiple directions and then lightly finish in one direction to ensure that no lap marks remain.

3. 3. 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 XIII.B.2 and 3 above. **CAUTION: Do not attempt to apply Demandit Sanded 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 Demandit Sanded is applied over existing Dryvit finishes. The degree of change is a function of the thickness and the number of coats of Demandit Sanded.**

D. Weatherlastic Smooth

1. 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, 70 °F (21 °C), 50% RH, two (2) hours drying time between coats should be adequate.
2. For cutting-in and trim, a nylon bristle brush is recommended.
3. Roller Application
 - a. A minimum 10 in (254 mm) roller cover with a 1 1/4 in - 1 1/2 in (32 mm - 38 mm) 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.
4. 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 2 gal (7.6 L) of coating per minute.
 - c. Material hose should be minimum 1/2 in (12.7 mm) inside diameter for spraying coating through more than a 50 ft (15 m) length. Minimum bursting of 800 lbs (3600 N) is recommended. **Tip: Orifice sizes of 0.021 in - 0.032 in (0.53 mm - 0.81 mm) will be required depending on equipment used.**
 - d. Cross apply coating holding spray gun perpendicular to, and approximately 3 ft (0.91 m) 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.

E. 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.
2. Tuscan Glaze is best applied on large areas using a Hudson-type sprayer or airless spray equipment. For smaller areas, Tuscan Glaze is best applied with a paint pad or, depending on the desired results, a roller, paint brush or sponge. Job site mock-ups are required and should represent the actual job site application techniques.
3. Apply Tuscan Glaze evenly in light strokes. If sagging or running occurs, use a sponge or paint pad to correct immediately. Watch for brush or roller lines. If brush or roller lines appear, use a damp sponge, a paint pad or rag to make them disappear before the Tuscan Glaze starts to dry. The wall may be blotted with a camelback sponge to achieve the desired mottled appearance. Check walls throughout the application to ensure that uniformity and the desired appearance is achieved.

F. SealClear

1. Mix SealClear to a smooth, homogeneous consistency in accordance with Section III.G.3.
2. For application instructions, refer to the SealClear Data Sheet, DS426.

G. MAINTENANCE AND REPAIR

- A. Refer to DryvitCARE EIFS Repair Procedures, [DS498](#).

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