

# Backstop<sup>®</sup> NT



DS181

A High Performance, Polymer-Based, Noncementitious  
Water-Resistive Membrane and Air Barrier

## Backstop NT Application Instructions

**CHECKLIST PRIOR TO THE INSTALLATION OF BACKSTOP NT - SMOOTH AND TEXTURE****Project Conditions**

- Maximum storage temperature shall not exceed 38 °C (100 °F). Minimum storage temperature shall not be less than 4 °C (40 °F).
- Air and surface temperatures for application of Backstop NT - Smooth and Texture must be 4 °C (40 °F) or above and must remain so for a minimum of 12 hours thereafter.
- Ensure that all roof-to-wall flashings, wall to deck flashings, run-off diverters (i.e. kick-outs), or other penetration flashings, are installed where required to direct water to the exterior of the building envelope. Particular attention must be paid to the eaves/chimney intersections, sloped roof/wall intersections, decks and windows.
- Application of Backstop NT and associated Dryvit products shall not take place during inclement weather unless appropriate protection is provided.
- Protect materials from inclement weather until they are completely dry.
- Protect surrounding areas and surfaces during installation of the Backstop NT.
- Backstop NT should not be left exposed more than 30 days prior to being covered with one of Dryvit's Exterior Insulation and Finish Systems.

**MATERIALS USED WHEN INSTALLING DRYVIT'S BACKSTOP NT - SMOOTH AND TEXTURE****Materials Supplied by Dryvit Systems, Inc.**

- Dryvit Backstop NT - Smooth
- Dryvit Backstop NT - Texture (Required for sheathing joint treatment)
- Dryvit Grid Tape™ (Required for sheathing joint treatment)
- Dryvit AquaFlash® Liquid and AquaFlash® Mesh (if specified)
- Dryvit Flashing Tape™ (if specified)
- Dryvit Flashing Tape Surface Conditioner™ (if specified)

**TOOLS USED FOR THE INSTALLATION OF DRYVIT'S BACKSTOP NT - SMOOTH AND TEXTURE**

- 19 mm (3/4 in) nap roller
- 13 mm (1/2 in) nap roller
- FoamPro #58 Roller
- Appropriate spray equipment (if needed)
- Hawk and Trowel

### I. Mixing

- A. Open the bucket with a utility knife or lid-off.
- B. Backstop NT is ready to use after an initial spin-up using a "Twister" paddle or equivalent mixing blade, powered by a 12.7 mm (1/2 in) drill, at 450 – 500 rpm. Do not add cement or any other additives.
- C. Do not dilute the product or add any foreign materials to the Backstop NT product.

### II. Substrate Check

- A. Ensure that the substrate is of a type listed in the Dryvit Backstop NT Specification, DS180.
- B. Ensure that ambient and surface temperatures are minimum 4 °C (40 °F) and rising at the time of Backstop NT application.
- C. Ensure that the substrate is dry. Plywood or OSB moisture content shall not exceed 19% as measured by a probe type moisture meter.
- D. Ensure that the substrate is flat within 6.4 mm (1/4 in) in a 1.2 m (4 ft) radius.
- E. Ensure that sheathing gaps do not exceed 6.4 mm (1/4 in). Larger gaps must be corrected by replacing the sheathing material.
- F. Notify the general contractor and/or architect and/or owner of all discrepancies. Do not proceed with work until discrepancies have been corrected.

### III. Surface Preparation

- A. The substrate shall be prepared so as to be free of foreign materials such as oil, dust, dirt, paint, wax, water repellents, moisture, frost and any other materials that may inhibit adhesion.

### IV. Backstop NT Application

- A. Ensure that the wall surface and ambient temperature are above 4 °C (40 °F) and rising at the time of Backstop NT 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.**

#### B. Sheathing Substrates:

1. Prior to applying the Backstop NT over a sheathing substrate, check to ensure that:
  - a. The sheathing is of a type listed in the Backstop NT Specification, DS180.
  - b. The sheathing is structurally sound, free of loose material, voids, projections or other conditions that may interfere with the installation of the Backstop NT material.
  - c. The sheathing is clean, dry and free of grease, oil, paint and other foreign material.
    - 1) Exterior grade gypsum sheathing facing paper shall not show signs of deterioration and shall be firmly bonded to the core.
    - 2) Plywood or OSB moisture content shall not exceed 19% as measured by a probe type moisture meter.
  - d. There are no planar irregularities greater than 6.4 mm (1/4 in) within any 1.2 m (4 ft) radius.  
**SHEATHING WITH GAPS OR DAMAGE EXCEEDING 6.4 MM (1/4 IN) 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 NT - Texture. A minimum of two (2) coats of Backstop NT - Smooth are required for the field of the wall.**  
**Backstop NT - Texture is not recommended for application in the field of the board.**

#### C. Concrete or Masonry Substrates

**NOTE: Backstop NT - Texture is the only recommended product for use over concrete and masonry.**

1. Prior to applying the Backstop NT - Texture over a concrete or masonry substrate, check to ensure that:
  - a. All cracks are repaired using appropriate procedures and materials.
  - b. The substrate is structurally sound, free of loose material, voids, projections or other conditions that may interfere with the installation of the Backstop NT - Texture material.
  - c. The substrate is clean, dry, free of grease, oil, paint, form release agents, efflorescence and other foreign materials that may inhibit adhesion.
  - d. There are no planar irregularities greater than 6.4 mm (1/4 in) within any 1.2 m (4 ft) radius.
    - 1) **Mortar joints that are NOT struck flush or heavily textured masonry units shall be skim coated with Dryvit Genesis<sup>®</sup>, Genesis<sup>®</sup> DM or Genesis<sup>®</sup> DMS prior to the application of Backstop NT - Texture.**
      - a) Mix Genesis, Genesis DM or Genesis DMS in accordance with the appropriate Product Data Sheet.
      - b) With a stainless steel trowel, apply a coat of the Genesis mixture, Genesis DM mixture or Genesis DMS mixture over the substrate to fill the mortar joints and surface texture to provide a uniform smooth surface for the application of the Backstop NT - Texture.

c) Allow the skim coat to completely dry prior to applying the Backstop NT - Texture.

D. Usage Application Chart

Backstop NT - Texture and Backstop NT - Smooth Usage/Application Chart				
Substrate	Location	Product	Tool	Approximate Coverage Per Pail <sup>e</sup>
Exterior Grade Gypsum Sheathing	Joints <sup>a</sup>	Backstop NT - Texture	Trowel	91 m (300 lin. ft.)
	Face <sup>f</sup>	Backstop NT - Texture OR	Trowel or FoamPRO #58 Roller <sup>b</sup>	For both tools 23-28 m <sup>2</sup> (250-300 ft <sup>2</sup> )
		Backstop NT - Smooth	12.7 mm (1/2 in) Nap Roller	46 m <sup>2</sup> (500 ft <sup>2</sup> ) <sup>c</sup>
Fiberglass Faced Exterior Gypsum Sheathing	Joints <sup>a</sup>	Backstop NT - Texture	Trowel	91 m (300 lin. ft.)
	Face <sup>f</sup>	Backstop NT - Texture OR	Trowel	23-28 m <sup>2</sup> (250-300 ft <sup>2</sup> ) [includes joints]
		Backstop NT - Smooth	19 mm (¾ in) Nap Roller	37 m <sup>2</sup> (400 ft <sup>2</sup> ) <sup>c</sup>
Exterior Grade and Fire Retardant Treated Plywood and Exterior Cement Board	Joints <sup>a</sup>	Backstop NT - Texture	Trowel	91 m (300 lin. ft.)
	Face <sup>f</sup>	Backstop NT - Texture OR	Trowel or FoamPRO #58 Roller <sup>b</sup>	For both tools 23-28 m <sup>2</sup> (250-300 ft <sup>2</sup> )
		Backstop NT - Smooth	12.7 mm (1/2 in) Nap Roller	37 m <sup>2</sup> (400 ft <sup>2</sup> ) <sup>c</sup>
APA Exposure 1 Rated Oriented Strand Board (OSB)	Joints <sup>a</sup>	Backstop NT - Texture	Trowel	91 m (300 lin. ft.)
	Face	Backstop NT - Smooth	12.7 mm (1/2 in) Nap Roller	33-37 m <sup>2</sup> (350-400 ft <sup>2</sup> ) applied in 2 coats
Concrete and Masonry <sup>d, g</sup>	Face	Backstop NT - Texture	Trowel <sup>g</sup>	16.7 m <sup>2</sup> (180 ft <sup>2</sup> ) <sup>h</sup>
			FoamPRO #58 Roller <sup>b</sup>	11-14 m <sup>2</sup> (125-150 ft <sup>2</sup> ) <sup>h</sup> applied in 2 coats

<sup>a</sup> Tape the joints with Dryvit Grid Tape prior to application of Backstop NT - Texture at joints and screw heads.  
<sup>b</sup> Up to 1 pint (16 oz) of water may be added to a 60 lb pail of Backstop NT - Texture for roller or spray applications only. The FoamPRO #58 roller cover (FoamPRO Mfg., Inc., www.foampromfg.com) is available at home supply stores.  
<sup>c</sup> Because of application methodology and absorptive surface differences, two coats may be required to obtain this coverage.  
<sup>d</sup> 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 dried BSNT - Texture, particularly at the mortar joints, the job should be parged with Genesis, 24 hours prior to BSNT - Texture application.  
<sup>e</sup> Backstop NT - Texture and Smooth should be applied at the recommended coverage rates to form a continuous film free of voids at a dry film thickness of approximately 12 mils.  
<sup>f</sup> Backstop NT - Texture (with up to 1 pint water addition per 60 lb. pail) or Smooth may be sprayed and backtrowelled/backrollered.  
<sup>g</sup> Due to variations in types of masonry a 6 ft x 6 ft test area shall be prepared to ensure that a continuous film can be achieved.  
**Backstop NT shall NOT be used as a skim coat for parging joints or heavy textured units.**  
<sup>h</sup> Coverage may vary depending on the porosity of the masonry substrate. Coverage based on smooth, dense block surface.

## E. Application of Backstop NT

## 1. Dryvit Grid Tape (not required with concrete and masonry substrates.)

- 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 or Dryvit Flashing Tape.
- 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.
- Apply only enough Dryvit Grid Tape as can be covered with Backstop NT - Texture in the same day.

## 2. Dryvit Backstop NT - Texture Application

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

- General: Backstop NT - Texture can be applied using a roller, trowel or spray equipment over the listed substrates, as noted in the usage chart above. Backstop NT - Texture should be applied at the recommended coverage rate to achieve a continuous film at a minimum dry film thickness of approximately 0.3 mm (12 mils).

## b. Roller Application

- Apply Dryvit Grid Tape as described in Section IV.E.1 above. Mix the Backstop NT - Texture material as described in Section I. Using a stainless steel trowel or spatula, apply a layer of Backstop NT - Texture over the Dryvit Grid Tape and spot all fastener heads – Figure 1.

**NOTE: Dryvit Grid Tape is not necessary over fastener heads.**

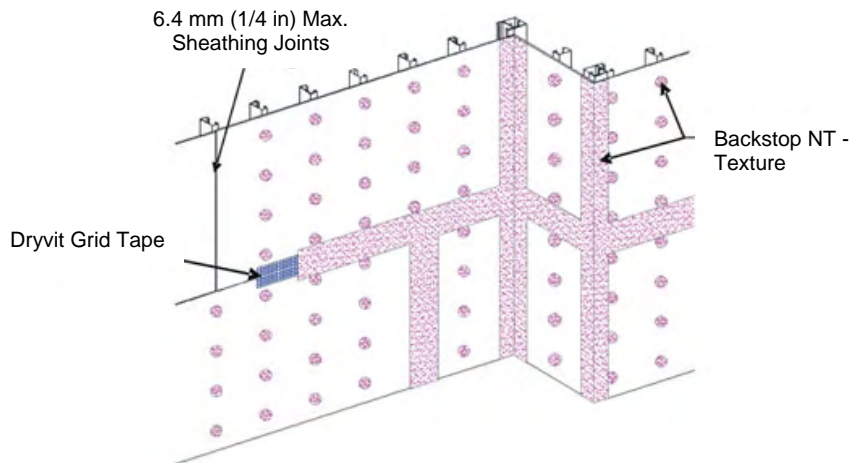


Figure 1

- Allow to dry for a minimum of 2 hours or until dry to the touch. **NOTE: Cool, humid conditions may require longer drying times.**
  - 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 NT - Texture material and allow to dry.
- Use a coarse, open-cell foam roller cover with a 9.5 mm (3/8 in) foam nap (FoamPro #58 roller). Apply a uniform, continuous film of Backstop NT - Texture over the entire surface of the sheathing, concrete or masonry, including the previously treated areas – Figure 2. **NOTE: If the roller pulls material back out of the sheathing joints, it indicates that the joint material is not sufficiently dry.**

- a) For concrete and masonry, ensure that a continuous film of uniform thickness is applied across the entire surface and across mortar joints. Minimum 2 coats are required allowing a minimum of 2 hours between coats. Cool, damp weather may require longer time between coats.

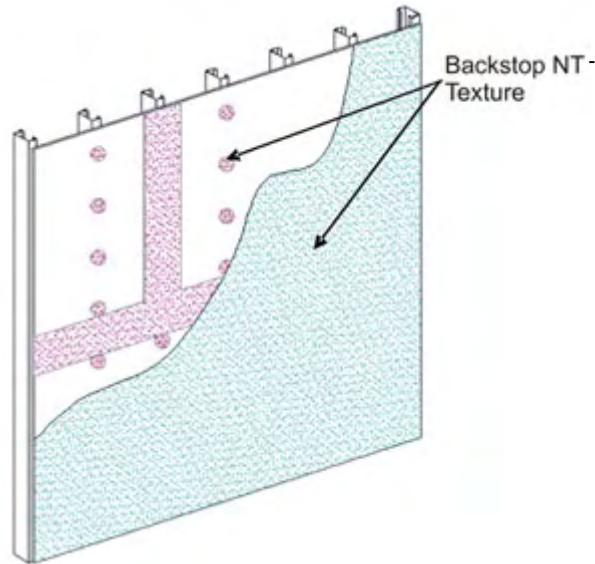


Figure 2

- 4) While the Backstop NT - Texture is still wet, using a trowel or spatula, smooth out the Backstop NT - Texture around all window and door perimeters and other areas that will later receive Dryvit Flashing Tape – Figure 3.

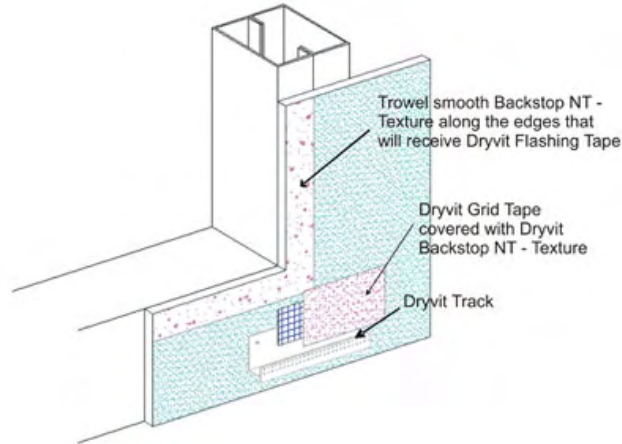


Figure 3

- 5) The Backstop NT - 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.**

c. Trowel Application

- 1) Apply Dryvit Grid Tape as described in Section IV.E.1 above. Mix the material, as described in Section I and using a stainless steel trowel or spatula, apply a layer of Backstop NT - Texture over the grid tape. Spotting of fasteners is not necessary when applying Backstop NT - 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 NT - 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.

## d. Spray/Back-rolling Application

- 1) Apply Dryvit Grid Tape as described in Section IV.E.1 above. Mix the material as described in Section I and using a stainless steel trowel or spatula, apply a layer of Backstop NT - Texture over the grid tape and spot all fastener heads. Allow to dry for a minimum of 2 hours or until dry to the touch.
- 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 NT - Texture material and allow to dry.
- 3) Using a hand held hopper gun or other suitable spray equipment; spray a layer of Backstop NT - Texture onto the wall surface. Using a coarse, open-cell foam roller cover with a 9.5 mm (3/8 in) 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.**
- 4) While Backstop NT - Texture is still wet, using a trowel or spatula, smooth out the Backstop NT - Texture around all window and door perimeters and other areas that will later receive Dryvit Flashing Tape – Figure 3.
- 5) Backstop NT - 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. Backstop NT - Smooth Application

- a. General: Dryvit Backstop NT - Smooth can be applied using a roller or sprayed and back-rolled over the acceptable sheathing substrates. **NOTE: OSB sheathing requires that joints and fasteners be treated with Backstop NT - Texture. A minimum of two (2) coats of Backstop NT - Smooth are required for the field of the wall. Backstop NT - Texture is not recommended for application in the field of the board.**
- b. Sheathing Substrates: All fastener heads shall be spotted and joints treated with Backstop NT - Texture and Dryvit Grid Tape in accordance with Section IV.E.2 prior to Backstop NT - Smooth application.
- c. Roller Application
  - 1) Using the appropriate nap roller (see Usage Application Chart), apply the Backstop NT - 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 NT - Smooth material should be applied in a uniform, continuous film at the recommended coverage rate – Figure 4. **NOTE: Sheathing substrates with a surface texture or high porosity will require additional material.**

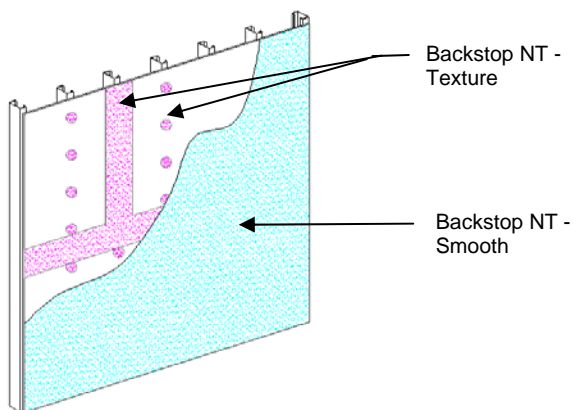


Figure 4

**d. Spray/Back-rolling Application**

- 1) Backstop NT - 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 NT - Smooth to completely dry, check the wall to ensure that the Backstop NT - Smooth is continuous and touch up any visible voids with additional Backstop NT - Smooth material.

e. Allow the Backstop NT - Smooth to completely dry prior to installation of the Dryvit EIF system.

**DISCLAIMER**

Information contained in these application instructions conforms to standard detail and product recommendations for the installation of the Dryvit Backstop NT 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 ensure that you are using the latest, most complete information, contact:

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