Backstop® NTX™ For Use Beneath Claddings Other Than Dryvit EIFS

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

DS200

Backstop NTX For Use Beneath Claddings Other Than Dryvit EIFS Specifications

DRYVIT SYSTEMS, INC.
MANUFACTURER'S SPECIFICATION
CSI MASTERFORMAT SECTIONS 07 25 00, 07 26 13, 07 27 26
DRYVIT BACKSTOP NTX FOR USE BENEATH CLADDINGS OTHER THAN DRYVIT EIFS

PART I - GENERAL

1.01 SUMMARY

A. This document contains all the manufacturer's requirements for the proper design, use, and installation of the Dryvit Backstop NTX - Texture, and Smooth air/water-resistive barrier. This document is intended to be used in conjunction with:
   1. Backstop NTX Application Instructions For Use Beneath Claddings Other Than Dryvit EIFS. DS300
   2. Backstop NTX Product Data Sheet For Use Beneath Claddings Other Than Dryvit EIFS, DS806
   3. Backstop NTX Air/Water-Resistive Barrier Details, DS840

B. Related Sections
   1. Water-Resistive Barriers – Section 07 25 00
   2. Vapor Retarders – 07 26 13
   3. Air Barriers – 07 27 26

1.02 REFERENCES

A. Section Includes
   1. ASTM C 297 Standard Test Method for Flatwise Tensile Strength of Sandwich Constructions
   2. ASTM C 1177 Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing
   3. ASTM C 1396 (formerly C 79) Standard Specification for Gypsum Board
   4. ASTM D 522 Standard Test Methods for Mandrel Bend Test of Attached Organic Coatings
   5. ASTM D 1970 Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection
   6. ASTM D 2370 Standard Test Method for Tensile Properties of Organic Coatings
   7. ASTM D 2247 (Federal Test Standard 141A Method 6201) Standard Practice for Testing Water Resistance of Coatings in 100% Relative Humidity
   8. ASTM E 72 Standard Methods for Conducting Strength Tests of Panels for Building Construction
   9. ASTM E 84 Standard Test Method for Surface Burning Characteristics of Building Materials
   10. ASTM E 96 Standard Test Methods for Water Vapor Transmission of Materials
   11. ASTM E 283 Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Differences Across the Specimen
   12. ASTM E 331 Test Method for Water Penetration of Exterior Windows, Skylights, Doors and Curtain Walls by Uniform Static Air Pressure Difference
   13. ASTM E 1233 Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls and Doors by Cyclic Air Pressure Differential
   14. ASTM E 2178 Standard Test Method for Air Permeance of Building Materials
   15. ASTM E 2357 Standard Test Method for Determining Air Leakage of Air Barrier Assemblies
   16. ASTM E 2134 Test Method for Evaluating the Tensile-Adhesion Performance of Exterior Insulation and Finish Systems (EIFS)
   17. ASTM E 2485 (formerly EIMA Std. 101.01) Standard Test Method for Freeze-Thaw Resistance of Exterior Insulation and Finish Systems (EIFS) and Water-Resistive Barrier Coatings
   18. ASTM E 2570 Standard Test Methods for Evaluating Water-Resistive Barrier (WRB) Coatings Used under Exterior Insulation and Finish Systems (EIFS) or EIFS with Drainage
   19. AATCC Test Method 127-2008 Water Resistance: Hydrostatic Pressure Test
   20. Federal Specification TT-C-555B Resistance to Wind-Driven Rain

1.03 DEFINITIONS

A. Contractor: The contractor that applies the Backstop NTX Texture, or Smooth to the substrate.
B. Sheathing: A substrate in sheet form.
C. Substrate: The material to which the Backstop NTX is applied.
D. Substrate System: The total wall assembly including the attached substrate to which the Backstop NTX is applied.
E. Air/Water-Resistive Barrier Materials: A combination of Backstop NTX and Dryvit Grid Tape™ with AquaFlash® Liquid and AquaFlash® Mesh.

1.04 DESCRIPTION

A. General: Dryvit Backstop NTX is available in Texture, and Smooth and is a flexible polymer based, noncementitious, protective coating used as an air/water-resistive barrier when applied over acceptable exterior substrates.

B. Design Requirements

1. Acceptable surfaces for Backstop NTX include: (Refer to DS300, Backstop NTX Application Instructions For Use Beneath Claddings Other Than Dryvit EIFS for more specific requirements)
   a. Exterior grade gypsum sheathing meeting ASTM C 1396 (formerly C 79) requirements for water resistant core or Type X core at the time of application.
   b. Exterior sheathing having a water-resistant core with fiberglass mat facers meeting ASTM C 1177.
   c. Exterior fiber reinforced cement or calcium silicate boards.
   d. APA Exterior or Exposure 1 Rated Plywood, Grade C-D or better, nominal 1/2 in (12.7 mm) minimum, installed with the C face out.
   e. APA Exterior or Exposure 1 Fire Retardant Treated (FRT) Plywood, Grade C-D or better, nominal 1/2 in (12.7 mm) minimum, installed with the C face out.
   f. APA Exposure 1 Rated Oriented Strand Board (OSB) nominal 1/2 in (12.7 mm), minimum. **Note: Backstop NTX – Texture is not recommended for the field of wall application over OSB.**
   g. Unpainted, unsealed concrete and CMU.
2. Backstop NTX is not intended to be used as waterproofing for exterior horizontal surfaces or below grade applications.
3. Backstop NTX can be exposed to weather up to 180 days to provide sufficient time for installation of the cladding. Inspect the surface of the Backstop NTX for any damage, cracks, voids or other detrimental conditions and repair prior to installation of the cladding.
4. Deflections of the substrate systems shall not exceed 1/240 times the span.

C. Performance Requirements: Backstop NTX shall meet the following performance criteria:

Test	Test Method	Criteria	Results
Surface Burning Characteristics	ASTM E 84	ICC and ANSI/EIMA 99-A-2001 Flame Spread <25 Smoke Developed <450	Passed
Flexibility	ASTM D 522 Method B	No ICC or ANSI/EIMA Criteria	No cracking at 2 mm diameter
Water Vapor Transmission	ASTM E 96 Procedure B ICC ES (AC212)*	ICC: Vapor Permeable No ANSI/EIMA Criteria	Vapor Permeable
Freeze-Thaw Resistance	ASTM E 2485/ICC-ES Procedure (AC212)*	ICC: 10 cycles No deleterious effects[1]	Passed - 10 cycles: No deleterious effects[1]
Water Resistance	ASTM D 2247 ICC ES (AC212)*	ICC: 14 days exposure No deleterious effects[1]	No deleterious effects[1] after 14 days exposure
Tensile Strength and Elongation	ASTM D 2370	No ICC or ANSI/EIMA Criteria	Tensile strength: 160 psi Elongation: 16.8%
Wind Driven Rain	Fed TT-C-555	No ICC or ANSI/EIMA Criteria	No water penetration
Nail Sealability	ASTM D 1970	No ICC or ANSI/EIMA Criteria	Passed ABAA Criteria
Air Leakage	ASTM E 283	No ICC or ANSI/EIMA Criteria	0.002 cfm/ft^2 (0.01 l/sec/m^2)
Air Permeance	ASTM E 2178	No ICC or ANSI/EIMA Criteria	1.2x10^{-4} cfm/ft^2 @ 1.6 psf (0.0006 l/s/m^2 @ 75Pa)
Air Barrier Assembly	ASTM E 2357	No ICC or ANSI/EIMA Criteria	<0.001 cfm/ft^2 @ 6.24 psf (0.05 l/sec m^2 @300 Pa)
Structural Performance	ASTM E 1233 Procedure A ICC ES (AC212)*	ICC: Minimum 10 positive cycles at 1/240 deflection; No cracking in field, at joints or interface with flashing.	Passed
Racking	ASTM E 72 ICC ES (AC212)*	ICC: No cracking in field, at joints or interface with flashing at net deflection of 1/8 in (3.2 mm)	Passed
Restrained Environmental	ICC-ES Procedure ICC ES (AC212)*	ICC: 5 cycles; No cracking in field; at joints or interface with flashing	Passed
Water Penetration	ASTM E 331 ICC ES (AC212)*	ICC: No water penetration beyond the inner-most plane of the wall after 15 minutes at 2.86 psf (137 kPa)	Passed
Tensile Bond	ASTM C 297/E 2134 (formerly EIMA 101.03) ICC ES (AC212)*	ICC and ANSI/EIMA 99-A-2001 Minimum 15 psi (104 kPa)	Substrates: Minimum 19 psi (131 kPa) Flashing: Minimum 431 psi (2970 kPa)
Weathering			
UV Exposure	ICC ES Proc. ICC ES (AC212)*	ICC: 210 hours of exposure	Passed
Accelerated Aging	ICC ES Proc. ICC ES (AC212)*	ICC: 25 cycles of wetting and drying	Passed
Hydrostatic Pressure Test	AATCC 127 ICC ES (AC212)*	ICC: 21.6 in (549 mm) water column for 5 hours	Passed

* AC212 – Acceptance Criteria for Water-Resistive Coatings Used as Water-Resistive Barriers over Exterior Sheathing, also referred to as ASTM E 2570

1. No cracking, checking, rusting, crazing, erosion, blistering, peeling, or delamination when viewed under 5x magnification

1.05 SUBMITTALS

A. Product Data – The contractor shall submit to the owner/architect manufacturer's product data sheets describing products that will be used on this project.

B. Samples – As required for the specific cladding specified.

1.06 QUALITY ASSURANCE

A. Qualifications

1. Product Manufacturer: Shall be Dryvit Systems, Inc. All materials shall be manufactured or sold by Dryvit and shall be purchased from Dryvit or its authorized distributor.
   a. Materials shall be manufactured at a facility covered by a current ISO 9001:2015 and ISO 14001:2015 certification. Certification of the facility shall be done by a registrar accredited by the American National Standards Institute, Registrar Accreditation Board (ANSI-RAB).
2. Contractor: Shall be experienced and competent in the waterproofing trade and application of liquid air and water-resistive barriers.

B. Certification

1. Backstop NTX shall be recognized for the intended use by the applicable building code(s).

1.07 DELIVERY, STORAGE, AND HANDLING

A. All Dryvit materials shall be delivered to the job site in the original, unopened packages with labels intact.

B. Upon arrival, materials shall be inspected for physical damage, freezing, or overheating. Questionable materials shall not be used.

C. Materials shall be stored at the job site and at all other times in a cool, dry location, out of direct sunlight, protected from inclement weather and other sources of damage. Storage temperature shall be from 40 °F (4 °C) minimum to 100 °F (38 °C) maximum.

1.08 PROJECT CONDITIONS

A. Environmental Requirements

1. 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.
2. At the time of application of Backstop NTX, the minimum air and wall surface temperatures shall be from 25 °F (-4 °C) minimum to 100 °F (38 °C) maximum. These temperatures shall be maintained, with adequate air ventilation and circulation, for a minimum of 12 hours thereafter, or until the products are dry.

B. Existing Conditions – The contractor shall have access to electric power, clean water, and a clean work area at the location where the Dryvit Backstop NTX materials are to be applied.

1.09 SEQUENCING AND SCHEDULING

A. Installation of the Dryvit Backstop NTX shall be coordinated with other construction trades.

1.10 LIMITED MATERIALS WARRANTY

A. Backstop NTX is covered by and subject to the terms and conditions of Dryvit's expressed written limited materials warranty. Dryvit makes no other warranties expressed or implied, including implied warranties of merchantability or fitness for a particular purpose.

1.11 DESIGN RESPONSIBILITY

A. It is the responsibility of both the specifier and the purchaser to determine if a product is suitable for its intended use. The designer selected by the purchaser shall be responsible for all decisions pertaining to design, detail, structural capability, attachment details, shop drawings, and the like. Dryvit has prepared guidelines in the form of specifications and product sheets to facilitate the design process only. Dryvit is not liable for any errors or omissions in design, detail, structural capability, attachment details, shop drawings, or the like, whether based upon the information prepared by Dryvit or otherwise, or for any changes which purchasers, specifiers, designers, or their appointed representatives may make to Dryvit's published comments.

PART II PRODUCT

2.01 MANUFACTURER

A. All materials shall be obtained from Dryvit or its authorized distributors. Substitutions or additions of materials other than specified will void the warranty.

2.02 COMPONENTS

A. Air/Water-Resistive Barrier Components:
   1. Dryvit Backstop NTX: A flexible, polymer-based, noncementitious, water-resistive membrane and air barrier available in Texture, and Smooth.
   2. Dryvit Grid Tape™: An open weave fiberglass mesh tape with pressure sensitive adhesive available in rolls
      4 in (102 mm) wide by 100 yds (91 m) long.

B. Flashing Materials: Used to protect substrate edges at terminations.
   1. Liquid Applied: An extremely flexible water-based polymer material, ready for use.
      a. Shall be AquaFlash® Liquid and AquaFlash Mesh

PART III EXECUTION

3.01 EXAMINATION

A. Prior to application of Backstop NTX the contractor shall verify that the substrate:
   1. Is of a type listed in Section 1.04.B.1.
   2. Is flat within 1/4 in (6.4 mm) in a 4 ft (1.2 m) radius.
   3. Gaps do not exceed 1/4 in (6.4 mm). Larger gaps shall be corrected by replacing sheathing material.
   4. Is sound, dry, connections are tight; has no surface voids, projections, or other conditions that may interfere with the application of Backstop NTX.
   5. Is otherwise in conformance with Dryvit's Product Data Sheet, DS806 and Application Instructions, DS300.

B. Ambient and surface temperatures are minimum 25 °F (4 °C) to maximum 100 °F (38 °C).

C. The contractor shall notify the general contractor and/or architect and/or owner of all discrepancies. Work shall not proceed until discrepancies have been corrected.

D. All roof/wall intersections, decks, balconies and other attachments, as well as eves, chimneys, mechanical equipment, signage etc. are properly flashed to divert water to the outside of the specified cladding.

E. All openings and penetrations are properly flashed and wrapped with the air/water-resistive barrier to prevent water intrusion damage.

3.02 SURFACE PREPARATION

A. The Backstop NTX materials shall be protected by permanent or temporary means from inclement weather and other sources of damage prior to, during, and following application until completely dry.

B. Protect adjoining work and property during application of Backstop NTX.

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

3.03 INSTALLATION

A. Backstop NTX – Texture
   1. General: Backstop NTX – Texture shall be applied in accordance with current published Dryvit Backstop NTX Application Instructions For Use Beneath Claddings Other Than Dryvit EIFS, DS300.
   2. Backstop NTX – Texture 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 additive.
   3. Apply a strip of Dryvit Grid Tape over all sheathing joints, including inside and outside corners and trowel apply a layer of Backstop NTX - Texture over the Dryvit Grid Tape.
   4. Depending on the substrate, Backstop NTX – Texture may be applied using a trowel, roller, or texture spray equipment and backrolled. Refer to Backstop NTX Application Instructions For Use Beneath Claddings Other Than Dryvit EIFS, DS300 for complete details.
   5. Apply Backstop NTX – Texture over the entire wall surface, including previously treated joints. Refer to the chart on the Backstop NTX Product Data Sheet For Use Beneath Claddings Other Than Dryvit EIFS, DS806, or Application Instructions For Use Beneath Claddings Other Than Dryvit EIFS, DS300, for proper tools and respective coverage.
   6. Allow to dry a minimum of 4 hours prior to application of Dryvit AquaFlash. Allow to dry a minimum of 24 hours prior to cladding installation. Cool damp weather will require longer drying times.
   7. Install the specified cladding per published installation instructions for the specific cladding being used.

B. Backstop NTX – Smooth (Roller Application)
1. General: Backstop NTX – Smooth is used in conjunction with Dryvit Backstop NTX – Texture joint treatment and shall be applied in accordance with current, published Dryvit Backstop NTX Application Instructions For Use Beneath Claddings Other Than Dryvit EIFS, DS300.
2. Backstop NTX – Smooth 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 additive.
3. Prior to Backstop NTX – Smooth application, sheathing joints, including inside and outside corners, shall be treated with Backstop NTX – Texture and Dryvit Grid Tape. All fastener heads shall also be spotted with Backstop NTX – Texture. Refer to Backstop NTX Application Instructions For Use Beneath Claddings Other Than Dryvit EIFS, DS300, for complete details. Allow to dry a minimum of 2 hours or until dry to the touch. Cool humid conditions will require longer drying time
4. Apply Backstop NTX Smooth over the entire wall surface, including previously treated fasteners and sheathing joints. Refer to the chart on the Backstop NTX Product Data Sheet For Use Beneath Claddings Other Than Dryvit EIFS, DS806, or Application Instructions For Use Beneath Claddings Other Than Dryvit EIFS, DS300, for proper tools and respective coverage.
Note: Backstop NTX – Texture is not recommended for the field of wall application over OSB.
5. Allow to dry a minimum of 4 hours prior to application of Dryvit AquaFlash. Allow to dry a minimum of 24 hours prior to cladding installation. Cool damp weather will require longer drying times.
6. Install the specified cladding per published installation instructions for the specific cladding being used.

C. Backstop NTX – Smooth (Spray Application)
1. General: Backstop NTX – Smooth shall be applied in accordance with current published Dryvit Backstop NTX Application Instructions For Use Beneath Claddings Other Than Dryvit EIFS, DS300.
2. Backstop NTX – Smooth 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 additive.
3. A maximum of 16 oz (473 ml) of clear potable water may be added if required to adjust workability.
4. Apply a strip of Dryvit Grid Tape over all sheathing joints, including inside and outside corners and trowel apply a layer of Backstop NTX - Texture over the Dryvit Grid Tape.
5. Backstop NTX – Smooth may be applied using airless spray equipment. Refer to Dryvit Backstop NTX Application Instructions For Use Beneath Claddings Other Than Dryvit EIFS, DS300 for complete details.
6 Apply Backstop NTX – Smooth over the entire wall surface, including previously treated joints. Refer to the chart on the Backstop NTX Product Data Sheet For Use Beneath Claddings Other Than Dryvit EIFS, DS806, or Application Instructions For Use Beneath Claddings Other Than Dryvit EIFS, DS300, for proper tools and respective coverage.
7. Allow to dry a minimum of 4 hours prior to application of Dryvit AquaFlash and adhesively applied EPS insulation board or specified cladding. Cool damp weather will require longer drying times.
8. Install the specified Dryvit Exterior Insulation and Finish System or specified cladding per published installation instructions for the specific system or cladding being used.

3.04 FIELD QUALITY CONTROL

A. The contractor shall be responsible for the proper storage and application of the Dryvit materials.
B. Dryvit assumes no responsibility for on-site inspections or application of its products.
C. The contractor and general contractor shall review and follow the Backstop NTX Application Instructions For Use Beneath Claddings Other Than Dryvit EIFS, DS300.

3.05 CLEANING

A. All excess Dryvit materials shall be removed from the job site by the Contractor in accordance with contract provisions.
B. All surrounding areas, where Dryvit materials have been installed, shall be left free of debris and foreign substances resulting from the Contractor's work.

3.06 PROTECTION

A. The Dryvit materials and the project shall be protected from damage and inclement weather until dry.

1. The Dryvit Backstop NTX – Texture, or Smooth can be exposed to weather up to 180 days to provide sufficient time for installation of the cladding. Inspect the surface of the Backstop NTX for any damage, cracks, voids or other detrimental conditions and repair prior to installation of the cladding. The Backstop NTX surface shall be clean, dry and free of any detrimental conditions that may affect adhesion.

DISCLAIMER

Information contained in this specification conforms to standard detail and product recommendations for the installation of the Dryvit Backstop NTX 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 Dryvit Systems, Inc. at:

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