



TECHNICAL DATA SHEET

BACKSTOP® NTX-VB

A high performance, polymer-based, noncementitious water-resistant membrane and air barrier

PRODUCT DESCRIPTION

Backstop® NTX-VB is a flexible, polymer-based, noncementitious, air/water-resistant barrier, which resists water penetration, eliminates air infiltration, and is classified as a Class I Vapor Retarder over vertical above grade walls. Backstop NTX-VB is available in two versions:

- Backstop NTX-VB is applied using a trowel, roller, or texture spray equipment.
- Backstop NTX-VB Smooth is applied by roller, texture spray equipment, or airless spray equipment.

BASIC USES

Backstop NTX – VB is designed for use with all building claddings, as well as Dryvit EIF systems. When used with the Dryvit AquaFlash® System, Backstop NT-VB provides an effective air/vapor/water-resistant barrier for acceptable substrates

FEATURES & BENEFITS

- Cold Weather Application 25 °F (-4 °C)
- Includes a reinforcing fabric at sheathing joints
- Bonds to most construction materials
- Fluid applied
- Fast drying
- Can be exposed for 180 days
- Ensures a continuous film barrier across transitions
- No need for multiple products
- Easy to use
- Not subject to tear off or damage from wind

PROPERTIES

Working Time: Backstop NTX-VB and VB Smooth are noncementitious, water-based materials and will not set-up in the pail. Keep pail covered when not in use to minimize skinning.

Drying Time: The drying time is dependent upon the air temperature, wind conditions and relative humidity. Under average drying conditions [70 °F (21 °C), 55% R.H.], Backstop NTX-VB and VB Smooth will be dry to the touch within 2 hours and cure in 6 hours.

Testing Information: For test data refer to the chart included with this document.

Application Procedure: For complete application instructions, refer to, [DS831](#).

Job Conditions: Air and surface temperature for application of Backstop NTX-VB and VB Smooth must be from 25 °F (-4 °C) minimum to 100 °F (38 °C) maximum and must remain so for a minimum of 12 hours.

Temporary Protection: Shall be provided at all times until membrane is dry and shall not be exposed to weather for longer than 180 days prior to installation of the specified cladding.

Acceptable Substrates:

All sheathing substrate joints must be treated with Dryvit Grid Tape and Backstop NTX-VB prior to application over the full sheathing surface. Acceptable substrates include:

- a. Core treated exterior grade gypsum sheathing meeting ASTM C 1396 (formerly C 79).
- b. Core treated exterior grade gypsum sheathing 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 Grade Fire Retardant Treated Plywood, nominal 1/2 in (12.7 mm) minimum, installed with the C face out.

- f. APA Exposure 1 Rated OSB, nominal 1/2 in (12.7 mm) minimum. Note: NTX – Texture is not recommended for the field of wall application over OSB.
- g. Unpainted, unsealed concrete and CMU.

SURFACE PREPARATION

- Sheathing board gaps shall not exceed 1/4 in (6.4 mm) and the surface must be flat within 1/4 in (6.4 mm) in any 4 ft (1.2 m) radius. CMU mortar joints shall be struck flush (tooled mortar joints and heavily textured CMU [not split faced] shall be skimmed with Dryvit Genesis®, Genesis® DM or Genesis® DMS) prior to application of the Backstop NTX Texture. CMU shall be clean, unpainted, and free of efflorescence. All substrates shall be dry and free of foreign materials such as dirt, dust, oil, paint, wax, water repellants or other materials that inhibit adhesion.
- Concrete: Shall have cured a minimum of 28 days prior to application of the Backstop NTX. If efflorescence, form release agents or curing compounds are present on the concrete surface, the surface shall be thoroughly washed with muriatic acid and flushed to remove residual acid. All projections shall be removed, and small voids filled with Dryvit Primus®, Primus®DM, Genesis®, or Genesis®DM mixture (see product data sheets for mixing and application).
- All substrate transitions and gaps between openings and penetration components such as windows, doors, electrical boxes, etc., shall be treated with Backstop NTX-VB or Dryvit AquaFlash®. Any sealants used shall be tested for compatibility and comply with ASTM C 920.
- All opening terminations, roof/wall intersections, transitions between different materials, chimneys decks, roof, windows, etc., must be properly flashed, wrapped, and sealed as required by the building code, good construction practice and/or Dryvit Backstop NTX Application Instructions, [DS831](#).

MIXING

Material is ready for use after an initial spin-up using a drill with paddle mixer. DO NOT ADD CEMENT.

APPLICATION

Backstop NTX-VB and VB Smooth Application: Refer to the usage/application chart for the appropriate use and application technique for a given substrate.

PACKAGING

Backstop NTX – VB is supplied in 5 gal (19 L) pails.

Backstop NTX – VB Smooth is supplied in a 5 gal (19 L) pail or in a 55 gallon (280 L) drum.

COVERAGE

Backstop NTX-VB and VB Smooth are supplied in a 5 gal (19 L) pail.

Coverage will vary, depending on application method and substrate. For guidance refer to the usage chart included in this document.

STORAGE

Backstop NTX-VB and VB Smooth must be stored at a minimum of 40 °F (4 °C) and a maximum of 100 °F (38 °C) in tightly sealed containers protected from weather and out of direct sunlight.

The shelf life is 2 years from date of manufacture when properly stored in unopened pails.

CAUTIONS & LIMITATIONS

- Apply to acceptable substrates only.
- OSB – Backstop NTX-VB is not recommended for use in the field of OSB.
- CMU - Application over unpainted concrete and CMU requires one of the following:
 - a. Two coats of Backstop NTX-VB Smooth, spray-applied.
 - b. Two coats of Backstop NTX-VB trowel applied.
- Shall not be used below grade or on surfaces that will be subjected to water immersion.
- Shall not be used to treat holes or sheathing joints exceeding 6.4 mm (1/4 in).

- When used beneath Portland cement stucco or adhered stone products, paper backed lath shall be installed over Backstop NTX-VB and VB Smooth as a slip sheet.
- Backstop NTX-VB and VB 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.

CLEAN UP

Clean tools with water while material is still wet.

TECHNICAL AND FIELD SERVICES

Available on request.

Backstop NTX (BSNTX) – VB and VB Smooth Usage/Application Chart		
PROPERTY/APPLICATION	APPROX. COVERAGE PER PAIL	APPROX. COVERAGE PER DRUM
EXTERIOR GRADE GYPSUM SHEATHING - JOINTS^a		
BSNTX-VB – Trowel	210 lin. Ft (64 m)	
BSNTX-VB– Trowel	560 ft ² (171 m ²)	
BSNTX-VB Smooth– Spray applied	560 ft ² (171 m ²)	6,160 ft ² (1,878 m ²)
Dymonic 100 – Putty Knife	308’ of joint per gallon for a ¼” x ¼” (6 mm x 6mm) 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)	
EXTERIOR GRADE GYPSUM SHEATHING - FACE^c		
BSNTX-VB – Trowel FoamPRO #58 Roller ^b , or Texture Sprayer	175-210 ft ² (53-64 m ²)	
BSNTX-VB ^{c-8} – ½ in (12.7 mm) Nap Roller	560 ft ² (171 m ²)	
BSNTX-VB Smooth ^{c-8} – Airless Spray	350-420 ft ² (106-128 m ²)	3,500 – 4,200 ft ² (1,067-1280 m ²)
FIBERGLASS FACE EXTERIOR GYPSUM SHEATHING - JOINTS^a		
BSNTX-VB – Trowel	210 lin. Ft (64 m)	
BSNTX-VB – Trowel	455 ft ² (139 m ²)	
FIBERGLASS FACE EXTERIOR GYPSUM SHEATHING - FACE^c		
BSNTX-VB – Trowel or Texture Sprayer	175-210 ft ² (53-64 m ²) [includes joints]	
BSNTX-VB ⁸ – ½ in (12.7 mm) Nap Roller	245-280 ft ² (75-85 m ²)	
BSNTX-VB Smooth ⁸ – Airless Sprayer	350-420 ft ² (107-128 m ²)	3,500 – 4,200 ft ² (1,067-1280 m ²)
Exposure 1, Exterior Grade, and Fire Retardant Treated Plywood and Exterior Cement Board - Joints		
BSNTX-VB – Trowel	210 lin. Ft (64 m)	
BSNTX-VB – Trowel	455 ft ² (139 m ²)	
Exposure 1, Exterior Grade, and Fire Retardant Treated Plywood and Exterior Cement Board - Face		
BSNTX-VB – Trowel, FoamPRO #58 Roller or Texture Sprayer	175-210 ft ² (53-64 m ²)	
BSNTX-VB ⁸ – ½ in (12.7 mm) Nap Roller	455 ft ² (139 m ²)	
BSNTX-VB Smooth ⁸ – Airless Sprayer	350-420 ft ² (107-128 m ²)	
APA Exposure 1 Rated Oriented Strand Board (OSB) - Joints^a		
BSNTX-VB – Trowel	210 lin. Ft (64 m)	
BSNTX-VB – Trowel	455 ft ² (139 m ²)	
APA Exposure 1 Rated Oriented Strand Board (OSB) - Face^c		

BSNTX-VB ^g - ½ in (12.7 mm) Nap Roller	245-280 ft ² (75-85 m ²)	
BSNTX-VB Smooth ^g - Airless Spray	245-280 ft ² (75-85 m ²)	2,450-2,800 ft ² (747-853 m ²)
Concrete and Masonry^{d,g}		
BSNTX-VB - Trowel ^f	140-175 ft ² (43-53 m ²) ^f	
BSNTX-VB – FoamPRO #58 Roller or Texture Sprayer	140-175 ft ² (43-53 m ²) ^f	
BSNTX-VB Smooth ^g - Airless Spray	210-350 ft (64-107m ²)	2,100-3,500 ft (640-1,067 m ²)

^a Tape the joints with Dryvit Grid Tape prior to application of Backstop NTX-VB at screw heads.

^b Up to 1 pint (16 oz) of water may be added to a 60 lb pail of Backstop NTX-VB for spray applications only.

^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-VB application. Backstop NTX-VB and VB Smooth shall NOT be used as a skim coat for parging CMU joints or heavy textured units.

^d Backstop NTX-VB and VB Smooth should be applied at the recommended coverage rates to form a continuous film free of voids.

^e Backstop NTX-VB (with up to 1 pint water addition per 60 lb. pail).

^f Coverage may vary depending on the texture and porosity of the substrate. Coverage assumes a smooth, dense surface.

^g 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	20 DFT	40* WFT
Backstop NTX Smooth	18 DFT	30*

*Based on volume solids

TYPICAL PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	CRITERIA	RESULTS
Surface Burning Characteristics	ASTM E 84	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 A (Desiccant Method)	Class I Vapor Retarder Less than 0.1 Perms	Backstop NT- VB: 0.088 Perms ² Backstop NT-VB Smooth: 0.07 Perms ²
Freeze-Thaw Resistance	ASTM E 2485 Method B*	No deleterious effects after 10 cycles ¹	Passed - 10 cycles: No deleterious effects ¹
Water Resistance	ASTM D 2247*	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 @ 1.6psf (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*	Minimum 10 positive cycles at 1/240 deflection; No cracking in field, at joints or interface with flashing	Passed
Racking	ASTM E 72*	No cracking in field; at joints or interface with flashing	Passed
Restrained Environmental	ICC-ES Procedure*	5 cycles; No cracking in field; at joints or interface with flashing.	Passed
Water Penetration	ASTM E 331*	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*	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	ASTM D 2898 Method B*	210 hours of exposure	Passed
Accelerated Aging	ICC ES Procedure*	25 cycles of wetting and drying	Passed
Hydrostatic Pressure Test	AATCC 127*	21.6 in (549 mm) water column for 5 hours	Passed
VOC	Regulatory	Meets South Coast Air Quality Management District (SCAQMD) Requirements	Less than 5 g/L
Volume Solids	Calculated	N/A	VB-Smooth: 71% VB 75%
Weight/Gal	Calculated	N/A	VB-Smooth: 12 lb/gal VB: 13 lb/gal

* ASTM E 2570 Standard Test Method for Evaluating Water-Resistive Barrier (WRB) Coatings Used under Exterior Insulation and Finish Systems (EIFS) or EIFS with Drainage, also referred to as AC212 – Acceptance Criteria for Water-Resistive Coatings Used as Water-Resistive Barriers over Exterior Sheathing 1. No cracking, checking, rusting, crazing, erosion, blistering, peeling, or delamination when viewed under 5x magnification 2. Defined as a Class I vapor retarder per the 2009 IBC and IRC

Information contained in this product sheet conforms to the standard detail recommendations and specifications for the installation of Dryvit Systems, Inc. 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.