

BACKSTOP[®] NT[™] FOR USE BENEATH CLADDINGS OTHER THAN DRYVIT[®] EIFS

DS806

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

Description

Backstop NT is a flexible, polymer-based, noncementitious, water-resistive membrane, which resists water penetration and eliminates air infiltration. Backstop NT is available in two types: Smooth and Texture.

Uses

Backstop NT - Smooth and Texture are designed to be used as a water-resistive barrier, air barrier, and/or Class III vapor retarder over vertical above grade walls. Backstop NT Smooth and Texture can be applied over the acceptable substrates noted below.

Benefits

Backstop NT - Smooth and Texture are used straight out of the pail. Backstop NT - Smooth is applied by roller or spray equipment. Backstop NT - Texture is applied using a trowel, roller, or spray equipment followed by back rolling. Backstop NT is seamless and will not tear. Additionally, it is stable under air pressure differences and will not be affected by wind.

Coverage

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

Properties

Working Time - Backstop NT - Smooth and Texture are, water based noncementitious materials. Keep pail covered when not in use.

Drying Time - The drying time of Backstop NT - Smooth and Texture is dependent upon the air temperature, wind conditions and relative humidity. Under average drying conditions [21 °C (70 °F), 55% R.H.], Backstop NT - Smooth and Texture 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, DS300.

Job Conditions - Air and surface temperature for application of Backstop NT must be 4 °C (40 °F) or higher and must remain so for a minimum of 12 hours.

Temporary Protection - Shall be provided at all times until membrane is dry.

Acceptable Substrates:

All sheathing substrate joints must be treated with Dryvit Grid Tape and Backstop NT - Texture prior to application over the full sheathing surface.

- 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 12.7 mm (1/2 in) minimum, 4-ply.
- e. APA Exterior Grade Fire Retardant Treated Plywood, nominal 12.7 mm (1/2 in) minimum.
- f. APA Exposure 1 Rated OSB, nominal 11.1 mm (7/16 in) minimum. (See limitations).
- g. Unpainted, unsealed concrete and CMU.

Surface Preparation - Water-resistive barrier and Class III vapor retarder

- Sheathing board gaps shall not exceed 6.4 mm (1/4 in) and the surface must be flat within 6.4 mm (1/4 in) in any 1.2 m (4 ft) 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 NT - 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.

Air Barrier Assembly

- Apply Backstop NT as indicated for the water-resistive barrier. In addition, all substrate transitions shall be treated with Backstop NT, Dryvit AquaFlash®, or Dryvit Flashing Tape™. All gaps between openings and penetration components such as windows, doors, electrical boxes, etc. must be sealed with sealant complying with ASTM C 920.
- All openings 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 NT
Application Instructions For
Use Beneath Claddings
Other Than Dryvit EIFS,
DS300.

Mixing - Backstop NT - Smooth and Texture are ready for use after an initial spin-up using a drill with paddle mixer. DO NOT ADD CEMENT.

Membrane Application

Refer to the usage/application chart for the appropriate use and application technique for a given substrate.

Clean Up - Clean tools with water while Backstop NT material is still wet.

Limitations

- Apply Backstop NT - Smooth or Texture to acceptable substrates only
- Application over Oriented Strand Board (OSB) requires a minimum of two (2) coats of Backstop NT - Smooth
- Backstop NT - Smooth or Texture shall not be used below grade or on surfaces that will be subjected to water immersion
- Backstop NT - Smooth or Texture shall not be used to treat holes or sheathing joints exceeding 6.4 mm (1/4 inch)
- When used beneath Portland cement stucco, paper backed lath shall be installed over Backstop NT prior to stucco application.
- Backstop NT - Texture is used over acceptable substrates including concrete and masonry.

When installing over concrete and CMU, a minimum of two coats are required.

Storage

Maximum storage temperature shall not exceed 38 °C (100 °F). Minimum storage temperature shall not be less than 4 °C (40 °F) Backstop NT - Smooth or Texture must be stored in tightly sealed containers out of direct sunlight.

Warranty

Backstop NT products are covered by and subject to the terms and conditions of Dryvit limited materials warranty. Dryvit makes no other warranties expressed or implied, including implied warranties of merchantability or fitness for a particular purpose. Contact Dryvit for full details.

Technical and Field Service

Available on request.

Backstop NT - Texture and Backstop NT - Smooth Usage/Application Chart				
Substrate	Location	Product	Tool	Approximate Coverage Per Pail ^{e, h}
Exterior Grade Gypsum Sheathing	Joints ^a	Backstop NT - Texture	Trowel	91 m (300 lin. ft.)
	Face ^f	Backstop NT - Texture	Trowel or FoamPRO #58 Roller ^b	For both tools 23-28 m ² (250-300 ft ²)
		OR Backstop NT - Smooth ^h	12.7 mm (1/2 in) Nap Roller	46 m ² (500 ft ²) ^c
Fiberglass Faced Exterior Gypsum Sheathing	Joints ^a	Backstop NT - Texture	Trowel	91 m (300 lin. ft.)
	Face ^f	Backstop NT - Texture	Trowel	23-28 m ² (250-300 ft ²) [includes joints]
		OR Backstop NT - Smooth ^h	19 mm (3/4 in) Nap Roller	37 m ² (400 ft ²) ^c
Exposure 1 or Exterior Grade and Fire Retardant Treated Plywood and Exterior Cement Board	Joints ^a	Backstop NT - Texture	Trowel	91 m (300 lin. ft.)
	Face ^f	Backstop NT - Texture	Trowel or FoamPRO #58 Roller ^b	For both tools 23-28 m ² (250-300 ft ²)
		OR Backstop NT - Smooth ^h	12.7 mm (1/2 in) Nap Roller	37 m ² (400 ft ²) ^c
APA Exposure 1 Rated Oriented Strand Board (OSB)	Joints ^a	Backstop NT - Texture	Trowel	91 m (300 lin. ft.)
	Face ^f	Backstop NT - Smooth ^h	12.7 mm (1/2 in) Nap Roller	33-37 m ² (350-400 ft ²) applied in 2 coats
Concrete and Masonry	Face ^d	Backstop NT - Texture	Trowel ^g	16.7 m ² (180 ft ²) ^g applied in 1 coat
			FoamPRO #58 Roller ^b	11-14 m ² (125-150 ft ²) ^g applied in 2 coats

^a Tape the joints with Dryvit Grid Tape prior to application of Backstop NT - Texture at joints and screw heads.
^b 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.
^c Because of application methodology and absorptive surface differences, two coats may be required to obtain this coverage.
^d 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 dried BSNT - Texture, particularly at the mortar joints, the job should be parged with Genesis[®], 24 hours prior to BSNT - Texture application. **Backstop NT shall NOT be used as a skim coat for parging CMU joints or heavy textured units.**
^e Backstop NT - Texture 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 (the approximate diameter of the aggregate component).
^f Backstop NT - Texture (with up to 1 pint water addition per 60 lb. pail) or Smooth may be sprayed and backtrowelled/backrolled.
^g Coverage may vary depending on the porosity of the substrate. Coverage assumes a smooth, dense surface.
^h At 400 ft²/pail, Backstop NT – Smooth achieves a dry film thickness (DFT) of 12 mils when applied in two coats. Each coat is applied at a minimum wet film thickness (WFT) of 13 mils.

Refer to Product Data Sheets for Complete Mixing and Application Instructions

Backstop NT - Smooth and Texture Testing			
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 2mm diameter
Water Vapor Transmission	ASTM E 96 Procedure B ICC ES (AC212)*	ICC: Vapor Permeable No ANSI/EIMA Criteria	7 Perms ²
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
Air Leakage	ASTM E 283	No ICC or ANSI/EIMA Criteria	0.01 l/sec/m ² (0.002 cfm/ft ²)
Air Permeance	ASTM E 2178	No ICC or ANSI/EIMA Criteria	0.0006 l/s/m ² @ 75Pa (1.2x10 ⁻⁴ cfm/ft ² @ 1.6 psf)
Air Barrier Assembly	ASTM E 2357	No ICC or ANSI/EIMA Criteria	0.05 l/sec m ² @300 Pa (<0.01 cfm/ft ² @ 6.24 psf)
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 3.2 mm (1/8 in)	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 137 kPa (2.86 psf)	Passed 75 minutes at 299 Pa (6.24 psf)
Tensile Bond	ASTM C 297/E 2134 (formerly EIMA 101.03) ICC ES (AC212)*	ICC and ANSI/EIMA 99-A-2001 Minimum 104 kPa (15 psi)	Substrates: Minimum 131 kPa (19 psi) Flashing: Minimum 2970 kPa (431 psi)
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: 549 mm (21.6 in) 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			
2. Defined as a Class III vapor retarder per the IBC and IRC			

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