TECHNICAL DATA SHEET

NEWBRICK™

Lightweight Insulated Brick Veneer for Use on Exterior Vertical Walls

DS870

Description

Dryvit's NewBrick™ offers superior insulating qualities in a high performance, durable, lightweight brick veneer. NewBrick consists of an insulated core encapsulated by reinforced, factory applied Dryvit coatings. A polymer modified joint mortar is field applied. NewBrick can be installed over a Dryvit Exterior Insulation and Finish System (EIFS) as well as over solid vertical surfaces such as concrete, masonry and more.

Available Options

Sizes: Modular, Utility, Norman, Economy

Colors: 16 standard and 4 blends

Textures: Smooth, Velour, Wire Cut and Coarse Cut

Effects: Flashed, Iron Spot, Flashed with Iron Spot

Configurations: Flat, Corner, End, Edge Cap, and 135° Corner (Modular size only)

Coverage

All coverages are approximate and depend upon details and individual application technique. NewBrick are packaged in either boxes or bundles. Please refer to the chart included with this document.

Adhesive: Primus® or Genesis®: approximately 260 ft2 (24. m2) per pail.

Primus®DM or Genesis® DM: approximately 100 ft2 (9 m2) per bag.

NewBrick Mortar Admix: approximately 45 ft2 per 80 lbs of mortar.

Mortar (by others): Must meet ASTM C 270 Type N or S. Refer to the manufacturer's product data sheet for coverage information.

Properties

Drying Time - Drying of the adhesive and mortar is dependent on the air temperature and relative humidity. Under average drying conditions [70° F (21°C), 55% R. H.], the adhesive and mortar will dry in 24 hours. Protect work from rain during the drying period. To minimize mortar joint cracking, it is recommended that the bricks not be disturbed for a minimum of 7 days following mortar application.

Testing Information

For test data and product properties refer to the chart included with this document.

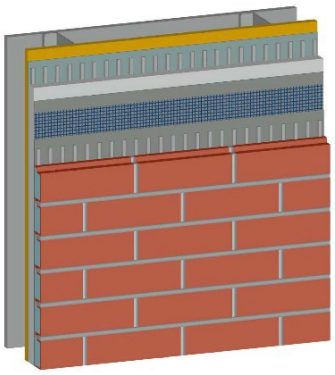
Application Procedure

Job Conditions - Air and surface temperatures must be 40°F (4°C) or higher and must remain so for a minimum of 24 hours. To prevent accelerated drying and minimize mortar joint cracking, it is recommended that the wall be covered or lightly fogged for the first 96 hours.

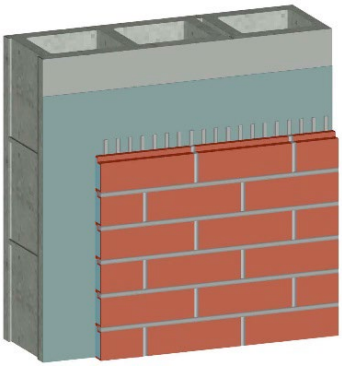
Temporary Protection - Provide temporary protection as required until the NewBrick adhesive and mortar are dry, and installation of permanent flashings, sealants, etc. are completed, and to protect the wall from inclement weather and other sources of damage.

Substrate Preparation

- Substrate must be free of voids, projections, and other conditions that may affect the installation of the NewBrick units.
- Exterior surfaces must be above 40°F (4°C) and must be clean, dry, structurally sound and free of efflorescence, grease, oil, form release agents and curing compounds.
- **Dryvit Reinforced Base Coat:** Shall be installed in accordance with the current literature for the specified Dryvit System. The base coat must dry and be cured for a minimum of 24 hours prior to application of NewBrick. Cure time may be longer depending on environmental conditions.
- **Concrete:** Shall be dry and cured for a minimum of 28 days prior to application of the NewBrick. 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.



NewBrick Applied Over Outsulation® Base Coat



NewBrick Applied Over a Solid Substrate

- All projections shall be removed and small voids filled with Dryvit Primus, Primus DM, Genesis or Genesis DM mixture (refer to published product data sheets for mixing and application).
- Masonry: Masonry shall be installed with joints struck flush. Highly porous or textured surfaces shall be "skim coated" with Primus, Primus DM, Genesis or Genesis DM mixture (refer to product data sheets for mixing and application) to produce a smooth, level surface.
- Portland Cement Plaster: Stucco brown coat shall be finished smooth and floated using a wood or hard rubber float resulting in a surface with adequate tooth to allow adhesion of the NewBrick adhesive. A slick, smooth trowel finish is not recommended. If additives are present in the stucco, a test patch shall be made and bond strength checked prior to application.
- Air/Water Resistive Barrier: When specified, Backstop® NT™ shall be applied in accordance with Backstop NT Application Instructions, DS181.

Mixing & Application

Refer to NewBrick Application Instructions, DS871.

Clean Up

Clean tools with water while the materials are still wet.

Maintenance

All Dryvit products are designed to require minimal maintenance.

However, as with all building products, depending on location, some cleaning may be required. See Dryvit publication, DS152, on cleaning and recoating. Mortar joints shall be inspected periodically

Storage

Wet materials must be stored at a minimum of 40oF (4°C) and a maximum of 100°F (38°C) in tightly sealed containers protected from weather and out of direct sunlight. Dry materials must be stored out of weather in a dry location until ready to use.

Cautions and Limitations

- Avoid applying wet materials in direct sunlight. Always work on the shady side of the wall or protect the area with appropriate shading material.
- NewBrick is not designed for interior uses.
- Thin hairline cracks can occur in the mortar joints for several reasons including; striking too early, excess water in the mortar mix, too rapid mortar curing during hot, windy or dry weather, and substrate movement. These small cracks should not be considered a defect and does not affect the performance of the product.
- To ensure proper cement hydration and strength development, the mortar should not be allowed to completely dry for a minimum of 4 days after installation. Fogging the wall to prevent premature drying is recommended. Once the NewBricks and mortar are installed, the wall should not be subjected to flexing, impact or vibrations from other work for a minimum of 7 days.

Technical and Field Services

Available on request.

NEWBRICK COVERAGES

BRICK TYPE	COUNT PER BOX/BUNDLE	Ft^2 (m^2)
Modular		
Flat	96	14.2 ft^2 (1.3 m^2)
Corner	64	13.7 ft^2 (1.2 m^2)
135 Corner	40	8.6 ft^2 (0.8 m^2)
Edge Cap	48	15.6 ft^2 (1.4 m^2)
End	80	11.8 ft^2 (1 m^2)
Economy		
Flat	64	14.2 ft^2 (1.3 m^2)
Corner	36	11.7 ft^2 (1 m^2)
Edge Cap	36	13.8 ft^2 (1.2 m^2)
End	64	14.2 ft^2 (1.3 m^2)
Norman		
Flat	60	13.3 ft^2 (1.2 m^2)
Corner	32	9.2 ft^2 (0.8 m^2)
Edge Cap	30	14.2 ft^2 (1.3 m^2)
End	60	13.3 ft^2 (1.2 m^2)
Utility		
Flat	40	13.1 ft^2 (1.2 m^2)
Corner	24	10.4 ft^2 (0.9 m^2)
Edge Cap	24	14 ft^2 (1.3 m^2)
End	40	13.1 ft^2 (1.2 m^2)

XPS INSULATION BOARD PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	RESULTS
Density	ASTM D 1622	1.5 lb/ft^3 (24 kg/m^3))
Thermal Resistance	ASTM C 518	5.0 °F ft^2 h/Btu (0.88 m^2 °C/W) @ 75 °F (23.9 °C)
Water Absorption	ASTM C 272	0.5 % by volume
Compressive Strength	ASTM D 1621	20 psi (140 kPa) min.
Shear Strength	ASTM C 273	25 psi (170 kPa)
Shear Modulus	ASTM C 273	300 psi (2068 kPa)
Tensile Strength	ASTM D 1623	50 psi (340 kPa) min.
Flexural Strength	ASTM C 203	40 psi (276 kPa) min.
Flexural Modulus	ASTM C 203	1500 psi (10342 kPa)
Flame Spread Index	ASTM E 84	15
Smoke Developed Index	ASTM E 84	165
Oxygen Index	ASTM D 2863	Min. 24%
Water Vapor Permeance	ASTM E 96	Max. 1.5 Perm for 1 in (25.4 mm) thickness

NEWBRICK™ TESTING

TEST	TEST METHOD	CRITERIA	RESULTS
Accelerated Weathering	ASTM G 155 Cycle 1	No deleterious effects[1] after 2000 hrs.	Passed
Freeze-Thaw	ASTM E 2485	No deleterious effects[1] after 10 cycles	Passed
Water Resistance	ASTM D 2247	No deleterious effects[1] after 14 days exposure	Passed
Salt Spray Resistance	ASTM B 117	No deleterious effects[1] after 300 hours exposure	Passed
Tensile Bond – adhesive to underlying substrate	ASTM C 297	Minimum 15 psi	Passed
Surface Burning Characteristics	ASTM E 84	ICC and ANSI/EIMA 99-A-2001 Flame Spread <25 Smoke Developed <450	Passed
Water Vapor Transmission	ASTM E 96 Procedure B	ICC: Vapor Permeable No ANSI/EIMA Criteria	40 Perms
Mildew Resistance	ASTM D 3273	ANSI/EIMA 99-A-2001 28 days: No growth	60 days: No growth
Abrasion Resistance	ASTM D 968 Method A Falling Sand	ANSI/EIMA 99-A-2001 528 quarts (500 liters): No deleterious effects[1]	1057 quarts (1000 liters): No deleterious effects[1]
	ASTM D 4060 Taber Abrasion (1 kg load)	No ICC or ANSI/EIMA Criteria	1000 cycles: .83 mg mass loss
Ignitability	NFPA 268	No ignition at 12.5 kW/m^2 at 20 minutes	Passed
Intermediate Multi-Story Fire Test	NFPA 285	1. Resist flame propagation over the exterior surface 2. Resist vertical spread of flame within combustible core/component of panel from one story to the next 3. Resist vertical spread of flame over the interior surface from one story to the next 4. Resist lateral spread of flame from the compartment of fire origin to adjacent spaces	Passed

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

Information contained in this product sheet conforms to the standard detail recommendations and specifications for the installation of Dryvit products as of the date of publication of this document and is presented in good faith. Dryvit 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.

For more information on Dryvit or Continuous Insulation, click here.

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