

Lightweight insulated brick veneer for use on exterior vertical walls

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) basecoat as well as over solid vertical surfaces such as concrete, masonry and more.

Available Options

Sizes: Modular, Utility, Norman, Economy

Colours: 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 24 m² (260 ft²) per pail.

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

NewBrick Mortar Admix: approximately 4.18 m² per 36.3 kg (45 ft² per 80 lbs) of mortar.

Mortar (by others): Must meet CAN/CSA-A179-04 (R2014) 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 [21 °C (70 °F), 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

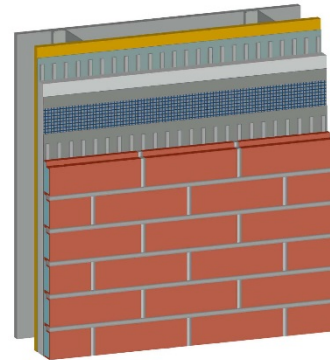
Job Conditions - Air and surface temperatures must be 4 °C (40 °F) or higher and must remain so for a minimum of 24 hours. To prevent accelerated drying and minimize mortar joint cracking, it is recommended that the wall be covered or lightly fogged for the first 96 hours.

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.

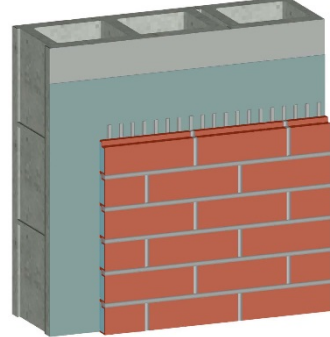
Substrate Preparation

- Substrate must be free of voids, projections, and other conditions that may affect the installation of the NewBrick units.
- Exterior surfaces must be above 4 °C (40 °F) and must be clean, dry, structurally sound and free of efflorescence, grease, oil,

form release agents and curing compounds.



NewBrick applied over Outsulation® Base Coat



NewBrick applied over a solid substrate

- **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.
- 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, DSC181.

Mixing & Application:

Refer to NewBrick Application Instructions, DSC871.

Clean Up:

Clean tools with water while 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, DSC152, on cleaning and recoating. Mortar joints shall be inspected periodically and repaired as needed.

Storage

Wet materials must be stored at a minimum of 4 °C (40 °F) and a maximum of 38 °C (100 °F) 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

work 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 do 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	1.3 m ² (14.2 ft ²)
	Corner	64	1.2 m ² (13.7 ft ²)
	135 Corner	40	0.8 m ² (8.6 ft ²)
	Edge Cap	48	1.4 m ² (15.6 ft ²)
	End	80	1 m ² (11.8 ft ²)
Economy	Flat	64	1.3 m ² (14.2 ft ²)
	Corner	36	1 m ² (11.7 ft ²)
	Edge Cap	36	1.2 m ² (13.8 ft ²)
	End	64	1.3 m ² (14.2 ft ²)
Norman	Flat	60	1.2 m ² (13.3 ft ²)
	Corner	32	0.8 m ² (9.2 ft ²)
	Edge Cap	30	1.3 m ² (14.2 ft ²)
	End	60	1.2 m ² (13.3 ft ²)
Utility	Flat	40	1.2 m ² (13.1 ft ²)
	Corner	24	0.9 m ² (10.4 ft ²)
	Edge Cap	24	1.3 m ² (14 ft ²)
	End	40	1.2 m ² (13.1 ft ²)

XPS Insulation Board Physical Properties		
Property	Test Method	Results
Density	ASTM D 1622	24 kg/m ³ (1.5 lb/ft ³)
Thermal Resistance	ASTM C 518	0.88 m ² •°C/W (5.0 °F•ft ² •h/Btu) @ 23.9 °C (75°F)
Water Absorption	ASTM C 272	0.5 % by volume
Compressive Strength	ASTM D 1621	104 kPa (20 psi) min
Shear Strength	ASTM C 273	170 kPa (25 psi)
Shear Modulus	ASTM C 273	2068 kPa (300 psi)
Tensile Strength	ASTM D 1623	340 kPa (50 psi) min
Flexural Strength	ASTM C 203	276 kPa (40 psi) min
Flexural Modulus	ASTM C 203	10342 kPa (1500 psi)
Flame Spread Index	ASTM E 84	15
Smoke Developed Index	ASTM E 84	165
Oxygen Index	ASTM D 2863	Min. 24%
Water Vapour Permeance	ASTM E 96	Max 85.82 ng/(Pa•m ² •s) (1.5 Perm) for 25.4 mm (1 in) thickness

NewBrick® Testing			
Test	Test Method	Criteria	Results
Accelerated Weathering	ASTM G 155 Cycle 1	No deleterious effects ¹ after 2000 hours	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 102 kPa (15 psi)	Passed
	CAN/ULC-S716.1	Minimum 80 kPa (11.6 psi)	Passed
Surface Burning Characteristics	ASTM E 84	ICC and ANSI/EIMA 99-A-2001 Flame Spread <25 Smoke Developed <450	Passed

Water Vapour Transmission	ASTM E 96 Procedure B	ICC: Vapour 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 500 liters (528 quarts): No deleterious effects ¹	1000 liters (1057 quarts): No deleterious effects ¹
	ASTM D 4060 Taber Abrasion (1 kg load)	No ICC or ANSI/EIMA Criteria	1000 cycles: 0.83 mg mass loss
Ignitibility	NFPA 268	No ignition at 12.5 kW/m ² at 20 minutes	Passed
Intermediate Multi-Story Fire Test	NFPA 285	<ol style="list-style-type: none"> 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 interior surface from one story to the next 4. Resist lateral spread of flame from compartment of fire origin to adjacent spaces 	Passed
Bond Strength following Hygrothermal Exposure	ASTM D 1623 ASTM E 2188	Minimum 80 kPa (11.6 psi) (CAN/ULC-S716.1)	239.40 kPa (34.72 psi)
Wind Load	ASTM E 330/330	Subject to designer's requirements.	L/240 @285 Pa (59.61 psf)
¹ No cracking, checking, rusting, crazing, erosion, peeling, or delamination when viewed under 5x magnification			