

Memorandum

To: Zach Hounshell, Planner II
Community Planning and Development
City of Dublin Ohio

From: Mark Ford

Date: February 19, 2025

Re: NewBrick – Insulated Brick Veneer System

Per your request of January 28, 2025, I have reviewed the technical data regarding the NewBrick insulated brick veneer system manufactured by Dryvit. Below is an outline of my findings.

Product Description: NewBrick is marketed as an “insulated brick unit” manufactured by Dryvit and was first marketed for use in 2017 and entered the Columbus Market that same year. Dryvit is one of the largest exterior insulation finish system (EIFS) systems in the United States. NewBrick is a modular insulated unit that is coated with a cementitious and synthetic/resin coating to simulate the appearance of a clay brick unit. The NewBrick units provide a lightweight, insulated, energy-efficient wall veneer. When installed with 2-inch EPS insulation, the NewBrick veneer will have an R-value of 9.

Product Finishes: Similar to clay brick units, NewBrick is available in a range of colors and finishes. Custom colors and finishes are available. The clay and resin face finish will provide a variation in color between units as well as an impact resistant surface.

Mortar Joints: Unlike other EIFS systems that create a brick veneer pattern in which the pattern is laser cut into a large sheet of insulation with recessed faux mortar joints. The NewBrick system uses masonry mortar to fill the mortar joints between the units. This results in an appearance very similar to clay brick veneer systems.

Product Use: Due to the lightweight nature of this product, NewBrick eliminates the requirement for foundation support and supplemental steel framing to support span across wall openings. It is approximately 1/12th the weight of traditional clay brick units. Additionally, unlike traditional full dimension clay brick units, NewBrick does not require intermediate floor level relief angles when used in wall areas of more than three stories.

Note, there are engineered “thin brick” clay brick systems that are also lightweight and provide many of the same benefits as the NewBrick system.

Product Installation: NewBrick can be installed in combination with continuous insulation (CI) or directly to a CMU or concrete substrate.

In general, these insulated units are adhered to the substrate with a selection of priority adhesives (NewBrick Adhesive, Dryvit's Primus, Genesis, Primus DM or Genesis DM). The units are installed individually, similar to clay brick; but rather than laid in weight bearing coursing, the units are adhered.

To view on-line videos of the installation process for the product, please use the links below.

<https://www.youtube.com/watch?v=eteoB95qBxU>

<https://www.youtube.com/watch?v=UPdA81vB8Kc>

NewBrick does offer a modular mosaic system that incorporates twelve "brick" units into a single panel to reduce the installation timeframe. To view this product installation video, please use the link below.

<https://www.youtube.com/watch?v=N3MObq-6tkU>

Product Testing and Code Approvals: NewBrick when installed over an insulated CI (continuous insulation) system is compliant with NFPA 285. NFPA 285 is a testing standard for the flame spread of exterior wall systems. This test is for wall assemblies and not an individual product. The building code official should request the assembly test results for the proposed construction.

Warranty: Per the manufacturer's literature, the material has a 25-year limited warranty.

Resource Information: I have attached the manufacturer's printed product literature that outlines the product uses and applications as well as multiple project examples.

- Dryvit NewBrick Brochure
- Dryvit NewBrick Project Examples Brochure

Review Comments

1. The applicant should clarify if they are proposing to use the individual unit installation or the mosaic multi-unit installation.
2. I have requested physical samples from the manufacturer and have provided those to planning staff. The samples do simulate the look of clay brick units; but as with most alternative materials, the detailing and installation of the product will be highly critical to the final appearance and long term performance of the material.
3. Confirm the windowsill details. Some of the manufacturer details require a substantial prefinished metal sill flashing that extends over the front face of the insulated brick units. This would not be a desirable detail for the proposed project.
4. This product is creative and innovative in terms of energy savings, transportation costs, installation costs and timeframes, and the reduction of building structure. The visible appearance is similar to traditional clay brick units. However, I do have concerns regarding a 25-year warranty for this product. The product has not been in the market for 25 years and as such, there is no physical example of the long-term performance of this material/system.

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