

ES Report CanyonRock ES-1974

Product Evaluation

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DIVISION: 04—MASONRY
Section: 04730—Simulated Stone

REPORT HOLDER:

GAF MATERIALS CORPORATION
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EVALUATION SUBJECT:

CANYONROCK

1.0 EVALUATION SCOPE

Compliance with the following codes:

- 2006 *International Building Code*® (IBC)
- 2006 *International Residential Code*® (IRC)

Properties evaluated:

- Exterior veneer characteristics
- Surface burning characteristics
- Thermal resistance

2.0 USES

CanyonRock is used as an adhered, non-load-bearing exterior veneer or an interior finish and trim on non-fire-resistance-rated wood or light-gage-steel stud, concrete or masonry walls.

3.0 DESCRIPTION

The veneer is a precast concrete product made to resemble natural stone in color and in texture. The concrete is composed of portland cement, pumice and sand aggregates, mineral oxide coloring, and water. The veneer units are molded and cured at the plant.

The veneer units are $\frac{7}{8}$ to $2\frac{5}{8}$ inches (22.2 to 66 mm) thick and have an area not exceeding 720 square inches (464 515 mm²) with a maximum dimension not exceeding 36 inches (914 mm). The average weight of the installed veneer units does not exceed 15 pounds per square foot (73.2 kg/m²).

The veneer has a Class A finish rating when tested in accordance with ASTM E 84. Additionally, the veneer units have an *R*-value of 0.85 when tested at a thickness of 1.0 inch (25.4 mm), in accordance with ASTM C 518.

4.0 INSTALLATION

4.1 General:

Installation of CanyonRock must comply with this report, the manufacturer's published installation instructions, and the

applicable code. The manufacturer's published installation instructions must be available at the jobsite at all times during installation.

The veneer may be applied over plywood, OSB, or gypsum sheathing attached to wood or steel studs; open wood or steel studs; or concrete or masonry walls. For interior applications, the veneer may also be installed over gypsum wall board.

The veneer is adhered to the supporting walls with a Type S mortar setting bed. The mortar must comply with IBC Table 2103.8(1) and IRC Table R607.1. The ambient temperature must be 40°F (4°C) or higher at the time of veneer application.

4.2 Application to Stud Construction:

The veneer may be applied to open studs spaced a maximum of 16 inches on center (406 mm) or over plywood, OSB or gypsum board backed by studs spaced a maximum of 16 inches (406 mm) on center.

Prior to installation of the lath, open studs are to be covered with wire backing and a water-resistive barrier in accordance with IBC Section 1404.2 or IRC Section R703.2, and plywood, OSB or gypsum board sheathing and gypsum wallboard must be covered with a water-resistive barrier in accordance with IBC Section 2510.6 or IRC Section R703.6.3.

At exterior walls, weep screeds and/or code-complying flashing must be installed at the bottom of the wall and at all terminations of the stone veneer. The weep screed must comply with and be installed in accordance with IBC Section 2512.1.2 or IRC Section R703.6.2.1, as applicable. In addition, the weep screeds must have holes with a minimum diameter of $\frac{3}{16}$ inch (4.6 mm) spaced at a maximum of 33 inches (838 mm) on center.

A 2.5-pound-per-square-yard (1.84 kg/m²), diamond pattern metal lath complying with ASTM C 847 is installed over the water-resistive barrier. The lath must be overlapped a minimum of 1 inch (25.4 mm). The lath is to be fastened to each of the wall studs at 6 inches (152 mm) on center vertically. For wood studs, fasteners must be galvanized nails or screws with a minimum head diameter of $\frac{3}{8}$ inch (9.5 mm) and sufficient length to penetrate the studs a minimum of 1 inch (25.4 mm). For steel studs, fasteners must be corrosion-resistant, self-drilling tapping screws with a low-profile head having a diameter of $\frac{3}{8}$ inch (9.5 mm) and sufficient length to penetrate the studs a minimum of $\frac{3}{8}$ inch (9.5 mm) or a minimum of three exposed threads, whichever is greater. Wood studs must have a minimum specific gravity of 0.42. Steel studs must be 30 mil [0.0329-inch-thick (0.836 mm)], minimum.

A $\frac{1}{2}$ -inch-thick (12.7 mm) scratch coat of Type S mortar is applied over the lath, etched using a trowel, and allowed to cure for at least 24 hours before the mortar setting bed is applied. A coat of Type S mortar, $\frac{1}{2}$ inch to $\frac{3}{4}$ inch thick (12.7 to 19.1 mm), is applied to the back of each piece of veneer and the veneer is pressed in place over the scratch coat.

4.3 Application to Masonry or Concrete:

The veneer units may be applied directly to masonry or concrete backings, without the use of lath, provided the surface is clean. Painted, waterproofed or dirty masonry surfaces must be cleaned by sandblasting or other means to provide a good bond surface. A coat of Type S mortar, $\frac{1}{2}$ inch to $\frac{3}{4}$ inch thick (12.7 to 19.1 mm), is applied to the back of each piece of veneer and the veneer is pressed in place over the scratch coat.

5.0 CONDITIONS OF USE

The manufactured stone veneer described in this report complies with, or is a suitable alternative to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 Installation must comply with this report, the manufacturer's published installation instructions and the applicable code. In the event there is a conflict between the manufacturer's published installation instructions and this report, this report governs.
- 5.2 The stone veneer must only be installed on wood-framed, light-gage-steel-framed, concrete or masonry walls.
- 5.3 Expansion or control joints used to limit the effect of differential movement of supports must be specified by the architect, designer or veneer manufacturer, in that order. Consideration must also be given to movement

caused by temperature change, shrinkage, creep and deflection.

- 5.4 In jurisdictions adopting the IRC, the supporting wall framing must be designed to support the additional weight of the stone veneer and mortar setting bed.
- 5.5 In jurisdictions adopting the IBC, the supporting wall framing must be designed to support the additional weight of the stone veneer and mortar setting bed. Additionally, supporting members must be designed to limit deflection to $\frac{1}{600}$ of the span of the supporting members.
- 5.6 In jurisdictions adopting the IRC, installations of the stone veneer must comply with the seismic provisions of Section R301.2.2.

6.0 EVIDENCE SUBMITTED

- 6.1 Data in accordance with the ICC-ES Acceptance Criteria for Precast Stone Veneer (AC51), dated January 2001 (editorially revised April 2005).
- 6.2 Report of testing in accordance with ASTM C 518.
- 6.3 Report of testing in accordance with ASTM E 84.

7.0 IDENTIFICATION

Each package of veneer is labeled or stamped with the GAF Materials name and address, the product name, the date of manufacture and the evaluation report number (ESR-1974).