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**DIVISION: 04—MASONRY**  
**Section: 04730—Simulated Stone**

**REPORT HOLDER:**

**DUTCH QUALITY STONE, INC.**  
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**EVALUATION SUBJECT:**

**DUTCH QUALITY STONE ADHERED VENEER**

**1.0 EVALUATION SCOPE**

**Compliance with the following codes:**

- 2003 *International Building Code*® (IBC)
- 2003 *International Residential Code*® (IRC)

**Properties evaluated:**

- Veneer strength and durability
- Thermal resistance

**2.0 USES**

Dutch Quality Stone Adhered Veneer is used as an adhered, nonload-bearing, exterior veneer on nonfire-resistance-rated wood-framed or light gage steel stud walls, concrete walls 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, aggregate, sand, water, admixtures and mineral oxide coloring. The veneer units are molded and cured at the plant.

The veneer units are 1 to 2 inches thick (25.4 to 51 mm) and have a maximum area of 720 square inches (464 515 mm<sup>2</sup>) with a maximum dimension of 36 inches (914 mm). The average weight of the installed veneer units does not exceed 15 pounds per square foot (73.2 kg/m<sup>2</sup>).

The veneer units have an *R*-value (°F·ft<sup>2</sup>·h/Btu) of 0.71 when tested in accordance with ASTM C 518 at a thickness of 1.08 inches (27 mm).

**4.0 INSTALLATION**

**4.1 General:**

Installation of Dutch Quality Stone adhered veneer is to comply with this report, the manufacturer's published installation instructions, and the applicable code. The

manufacturer's published installation instructions are to be available at the jobsite at all times during installation.

The veneer is applied over plywood or OSB sheathing, supported by wood or steel studs, or over concrete or masonry walls.

The veneer is to be adhered to the supporting walls with a setting bed of Type M or N mortar, complying with IBC Table 2103.7(1) or IRC Table R607.1, as applicable. The ambient temperature is to be 40°F (4.44°C) or higher at the time of veneer application.

**4.2 Application to Stud Construction:**

The veneer is applied over plywood or OSB backed by studs spaced a maximum of 16 inches (406 mm) on center. The sheathing is to be covered with two layers of water-resistive barrier in accordance with the manufacturer's installation instructions and IBC Section 2510.6, or with a weather-resistant sheathing paper in accordance with IRC Section R703.2, as applicable, prior to the installation of the lath.

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 are to have holes with a minimum diameter of <sup>3</sup>/<sub>16</sub> inch (4.8 mm) spaced at a maximum of 33 inches (838 mm) on center.

A 2.5-pound-per-square-yard (1.4 kg/m<sup>2</sup>), diamond-pattern metal lath complying with ASTM C 847 is installed over the water-resistive barrier or weather-resistant sheathing paper. The lath is lapped a minimum of 4 inches (102 mm) at horizontal joints and 8 inches (203 mm) at vertical joints. The lath is to be fastened to each of the wall studs at 6 inches (152 mm) on center, vertically. For wood studs, fasteners should be galvanized nails or screws with a minimum head diameter of <sup>3</sup>/<sub>8</sub> inch (9.5 mm) and a minimum shank diameter of 0.1205 inch (3.06 mm), and of sufficient length to penetrate the studs a minimum of 1 inch (25.4 mm); or galvanized No. 16 gage staples with a 1-inch (25.4 mm) crown and sufficient length to penetrate the studs a minimum of 1 inch (25.4 mm). For steel studs, fasteners must be corrosion-resistant, self-tapping screws with a head diameter of <sup>3</sup>/<sub>8</sub> inch (9.5 mm) and sufficient length to penetrate the studs a minimum of <sup>3</sup>/<sub>8</sub> inch (9.5 mm). Wood studs are to have a minimum specific gravity of 0.42. Steel studs are to be No. 20 gage [base-metal thickness 0.033 inch (0.84 mm)], minimum.

A scratch coat of mortar matching the setting bed mortar, <sup>3</sup>/<sub>8</sub> to <sup>5</sup>/<sub>8</sub> inch thick (9.5 to 15.9 mm), is applied over the lath and allowed to cure for at least 6 hours before the veneer units are applied. A <sup>1</sup>/<sub>2</sub>-inch-thick (12.7 mm) coat of mortar is applied to the back of each piece of veneer and the veneer is pressed in place over the scratch coat. Joints between veneer units are to be grouted and tooled in accordance with the manufacturer's published installation instructions.

### 4.3 Application to Masonry or Concrete:

The veneer units may be applied directly to clean, unpainted masonry or concrete backings, without a water-resistive barrier or weather-resistant sheathing paper. For masonry walls, lath is not required. For concrete walls, a 2.5-pound-per-square-yard (1.4 kg/m<sup>2</sup>), diamond-pattern metal lath complying with ASTM C 847 is installed using masonry nails or screws having a 1-inch (25.4 mm) minimum embedment, at 6 inches (152 mm) on center, horizontally and vertically. The lath is lapped a minimum of 4 inches (102 mm) at horizontal joints and 8 inches (203 mm) at vertical joints. A scratch coat and the veneer units are then applied as described in Section 4.2.

### 5.0 CONDITIONS OF USE

The Dutch Quality Stone adhered 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 use of the precast stone veneer is limited to installation 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 are to 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 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.
- 5.5 In jurisdictions adopting the IRC, installations of the stone veneer must comply with the seismic provisions of Section R301.2.2.
- 5.6 The veneer must be installed not less than 4 inches (102 mm) above finished grade.
- 5.7 Dutch Quality Stone veneer must not be used in areas that may come in contact with harsh chemicals and/or deicing materials.

### 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.

### 7.0 IDENTIFICATION

Each package of veneer is labeled or stamped with the manufacturer's name (Dutch Quality Stone), the product name and the evaluation report number (ESR-1942).