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STONEMASTER™ AND BUILDERSCHOICE™ STONE

CSI Sections:

04 00 00 Masonry
04 71 00 Manufactured Brick Masonry
04 73 00 Manufactured Stone Masonry

1.0 RECOGNITION

StoneMaster™ and BuildersChoice™ Stone veneer have been evaluated for use as an adhered veneer exterior wall covering and an interior finish over walls of wood stud framing, cold-formed steel framing, or concrete masonry. The composition, strength, surface-burning characteristics, and durability properties of the StoneMaster™ and BuildersChoice™ Stone veneer comply with the intent of the provisions of the following codes and regulations:

- 2012 International Building Code® (IBC)
- 2012 International Residential Code® (IRC)

2.0 LIMITATIONS

Use of StoneMaster™ and BuildersChoice™ Stone veneer recognized in this report is subject to the following limitations:

2.1 Expansion or control joints used to limit the effect of differential movement of precast stone veneer supports shall be specified by the architect, designer or veneer manufacturer, in that order. Movement caused by temperature changes, shrinkage, creep and deflection shall be taken into account.

2.2 For installation in accordance with the IBC, supporting wall construction shall be designed to support the weight of the veneer system. Horizontal framing members, such as lintels and headers, that support precast stone veneer, shall be designed to limit deflection to $^{1}/_{600}$ of the span.

2.3 In jurisdictions adopting the IRC, where the seismic provisions of Section R301.2.2 apply, the average weight of the wall supporting StoneMaster™ or BuildersChoice™ Stone veneer, including the weight of the veneer system shall be determined. When this weight exceeds the applicable limits of Section R301.2.2.2.1 of the IRC, an engineered design of the wall construction shall be performed in accordance with Section R301.1.3 of the IRC.

2.4 When installed on exterior stud walls, the veneer units shall be installed a minimum of 4 inches (102 mm) above the earth, or a minimum of 2 inches (51 mm) above paved areas, or a minimum of ½ inch (12 mm) above exterior walking surfaces which are supported by the same foundation that supports the exterior wall in accordance with 2012 IBC Section 1405.10.1.3 or 2012 IRC Section R703.12.1, as applicable.

2.5 StoneMaster™ and BuildersChoice™ Stone veneer are produced by StoneMaster™, Inc. in Concord, North Carolina.

3.0 PRODUCT USE

3.1 General:

StoneMaster™ and BuildersChoice™ Stone veneer comply with Section 1405.10 of the IBC and Section R703.7 of the IRC as an exterior wall covering. The backing for StoneMaster™ and BuildersChoice™ Stone veneer shall be of concrete, masonry, steel framing or wood framing. The veneer units shall be adhered to cement plaster, concrete or concrete masonry backings when installed in accordance with the manufacturer's specified installation instructions (Installation Guide for Adhered Manufactured Stone Veneer, 4th Edition, published by the Masonry Veneer Manufactures Association), ASTM C1780-20, this report and the applicable code. Lath, lath accessories, and fasteners shall be corrosion-resistant. The installation instructions shall be strictly adhered to and be available at the jobsite during application.

3.2 Installation:

StoneMaster™ and BuildersChoice™ Stone veneer are applied over backings of cement plaster, concrete, or concrete masonry. Installation of the veneer shall comply with this report, the manufacturer's published installation instructions, and the applicable code. If conflicts occur, the most restrictive requirements shall apply.

3.3 Substrate:

3.3.1 Cement Plaster: A backing of cement plaster may be applied over the following substrates:

- Plywood, oriented strand board, or gypsum sheathing supported by open wood or steel studs.
- Concrete walls.
- Concrete masonry walls.

Installation shall be as described in Sections 3.3.1.1 through 3.3.1.3.

3.3.1.1 Sheathing Applications: When installing on an exterior application, a water-resistive barrier complying with Sections 1404.2 and 2510.6 of the IBC or Sections R703.2 and R703.6.3 of the IRC, as applicable, shall be provided between the cement plaster backing and the sheathing. Flashing in accordance with Sections 1405.4 and 1405.10.1 of the IBC or Sections R703.8 and R703.12.2 of the IRC, as applicable, shall be installed. In addition, the weep screeds must have holes with a minimum diameter of $^{3}/_{16}$-inch (5 mm) spaced at not more than 33 inches (838 mm) on center, in accordance with Section 12.1.6.2 of TMS 402/ACI 530/ASCE 5. The veneer must be installed with the clearances required by IBC Section 1404.10.1.3 or IRC Section R703.12.1, as applicable.

Stud spacing shall not exceed 16 inches (406 mm) on center. Lath shall be self-furred, 2.5 lb/yd² (1.4 kg/m²), diamond pattern metal lath complying with ASTM C847 or 1.4 lb/yd² (0.76 kg/m²), corrosion-resistant, woven wire plaster base complying with ASTM C1032. The lath shall be lapped in accordance with Section 7.8 of ASTM C1063 and be fastened to the wall framing in accordance with minimum requirements of Section 7.10 of ASTM C1063 or Section R703.6.1 of the IRC, as applicable. Fasteners shall be spaced no more than 6 inches (152 mm) on center and shall penetrate a least 1 inch (25 mm) into wood framing. For steel studs, fasteners shall be self-tapping screws with a head diameter of $^{7}/_{16}$ inch (11 mm) and be of sufficient length to penetrate the studs a minimum of $^{3}/_{8}$ inch (10 mm).

A scratch coat of Type S mortar (cement plaster) complying with ASTM C926 shall be applied over the lath to a minimum thickness of ½-inch (13 mm). The scratch coat shall be scored horizontally in accordance with the manufacturer's published installation instructions and allowed to cure in accordance with Section 2512.6 of the IBC, prior to application of the StoneMaster™ or BuildersChoice™ Stone veneer units.

3.3.1.2 Open Stud Applications: For exterior applications to open studs (no sheathing), cement plaster backing shall be installed over a water-resistive barrier, flashing and weep screeds as described in Section 3.3.1.1 of this report. Studs shall be spaced not more than 16 inches (406 mm) on center. Lath shall be 3.4 lb/yd² (1.8 kg/m²), $^{3}/_{8}$-inch (10 mm) rib lath complying with ASTM C847. The lath shall be fastened to wall framing and the scratch coat applied as described in Section 3.3.1.1 of this report.

3.3.1.3 Concrete and Masonry Applications: StoneMaster™ and BuildersChoice™ Stone veneer may be applied directly to concrete or masonry backing without lath provided the concrete or masonry surface is clean. Where lath is used, the lath shall comply with ASTM C847 or ASTM C1032 1.4 lb/yd² (0.76 kg/m²), corrosion-resistant, woven wire plaster base. The lath shall be fastened to the wall in accordance with Section 7.10 of ASTM C1063 or Section R703.6.1 of the IRC, as applicable. The fasteners shall be spaced not more than 6 inches (152 mm) on center vertically and not more than 16 inches (406 mm) on center horizontally. The gravity load (shear) capacity and negative wind load (pull-out) capacity of the proprietary fasteners shall be justified to the satisfaction of the Building Official. The scratch coat shall be applied as described in Section 3.3.1.1 of this report.

3.3.2 Concrete and Masonry Substrates: Poured concrete and concrete masonry wall surfaces shall be prepared in accordance with Section 5.2 of ASTM C926 and Section 2510.7 of the IBC, as applicable. As an alternative, cement plaster backing may be installed as described in Section 3.3.1.3.

3.4 Veneer Units: The scratch coat or other backing and the back of the veneer units, prior to application, shall be moistened in accordance with the manufacturer's instructions. A setting bed of Type S mortar, ½-inch-thick (13 mm), is applied to the back of the veneer units. The veneer units are then pressed firmly in place, with the mortar squeezed out around all the veneer unit edges. Joints between the veneer units shall be grouted and tooled in accordance with the manufacturer's installation instructions.

3.5 Interior Finish: When tested in accordance with ASTM E84, StoneMaster™ and BuildersChoice™ Stone veneer have a flame spread index of not more than 25 and a smoke-developed index of not more than 450. The veneer qualifies as a Class A interior finish in accordance with Section 803.1 of the IBC and complies with the requirements in Section R302.9 of the IRC.

4.0 PRODUCT DESCRIPTION

4.1 StoneMaster™ and BuildersChoice™ Stone veneer are manufactured concrete products formed to resemble natural stone or adobe in both texture and color. The individual masonry veneer units are a minimum of ¾ inch (19 mm) thick and a maximum of $1^{13}/_{16}$ inches (47 mm) thick with a minimum compressive strength of 1,800 psi (12.4 MPa). The installed products' average saturated weight is not more than 15 pounds per square foot (73 kg/m²). The recognized veneer styles are shown in Table 1 of this report.

5.0 IDENTIFICATION

Boxes of StoneMaster™ and BuildersChoice™ Stone are identified with the manufacturer's name, the pattern/style name, manufacturing date, manufacturing location, and evaluation report number (ER-802). The IAPMO UES Uniform Evaluation Service mark of conformity may be used as shown below:

IAPMO UES ER-802

6.0 SUBSTANTIATING DATA

6.1 Data in accordance with Acceptance Criteria for Precast Stone Veneer (ICC-ES AC51), approved February 2008 (editorially revised April 2012).

6.2 Test report in accordance with ASTM E84.

6.3 Test reports are from laboratories in compliance with ISO/IEC 17025.

7.0 STATEMENT OF RECOGNITION

This evaluation report describes the results of researchcompleted by IAPMO Uniform Evaluation Service on StoneMaster™ and BuildersChoice™ Stone veneer to assess conformance to the codes shown in Section 1.0 of this report and serves as documentation of the product certification. Products are manufactured at locations noted in Section 2.5 of this report under a quality control program with periodic inspections under the supervision of IAPMO UES.

For additional information about this evaluation report please visit www.uniform-es.org or email us at info@uniform-es.org

TABLE 1 – Recognized Veneer Style Names
Castle Rock, Cobble Stone, Cut Face, Fieldstone, Ledgestone, Limestone, Quickfit Stone, River Stone, Split Face, Stackstone, and Blends.