



SECTION 04730
SIMULATED STONE
SPECIFICATION DATA

1. Product Name

Dutch Quality Stone

2. Manufacturer

Dutch Quality Stone
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3. Product Description

Basic Use

Dutch Quality Stone is a lightweight concrete facade, designed for cosmetic use on interior and exterior walls. The product is intended for non-structural use, and because of its light weight, requires no additional footings. Veneer or manufactured stone can be applied to almost any load-bearing wall, wood frame, steel, or masonry.

Composition & Materials

Dutch Quality Stone is produced from a combination of portland cement, lightweight aggregates and permanent mineral oxides. It is formed in molds produced from natural stone.

Types

Stone Veneer - 46 Types
Hearthstones - 6 types
Window Treatments - 12 Types Utility Pieces - 9 Types Keystones - 15 Types
Corner Treatments - 6 Types
Wall / Pier caps - 15 Types

Sizes & Shapes

Dutch Quality Stone will vary greatly in size and shape. See manufacturer's current literature for detailed sizing information on each stone product. Stone thickness will vary from 1" - 2" (25.4 - 51 mm)

Styles & Textures

Weather Ledge
Ledgestone
Stackstone
Limestone
Cobbled Limestone
Fieldstone
Top Rock
River Rock
Michigan Split Granite
Dry Stack
Country Manor

Colors

Many color options are available for the different styles of stone. See manufacturer's brochure for current color selections.

Limitations

Dutch Quality Stone should not be used in areas that may come in contact with harsh chemicals and/or de-icing materials. Hearthstones are not intended for, and will not hold up to, foot traffic. Do not sandblast, pressure wash, or use wire brushes or acidic compounds to clean the stone.

4. Technical Data

Physical / Chemical Properties

Absorption: < 18%

Compression Strength (ASTM C39) > 1800 psi (12.4 MPa)

Thickness - 1" - 2" (25.4 - 51 mm)

Fire rating – Zero flame spread, zero fuel contributed, zero smoke developed

Veneer unit weight: < 15 pounds per square foot (73 kg/m²)

R-value - 0.75 - 1ft² x h x °F/Btu (0.132 - 0.176 m² x K/W)

5. Installation

Installation of Dutch Quality shall be in strict accordance with the manufacturer's instructions and local building code requirements. A copy of Dutch Quality Stone's most current installation instructions can be found at www.dutchqualitystone.com.

Application to Sheathed Wood Frame Construction:

Studs shall be spaced a maximum of 16 in. (406 mm) on center. The sheathed surface shall be covered with two layers of a water-resistive barrier complying with either ASTM D 226 for Type 1 No. 15 felt, UBC 14-1, or a water-resistive barrier meeting the requirements of ICC Acceptance Criteria AC38. Galvanized 2.5lb/yd² (1.4 kg/m²) expanded metal lath complying with ASTM C847, or 18 gauge woven wire mesh complying with ASTM C1032, shall be attached to the studs spaced 16 in. (406mm) on center with galvanized roofing nails or galvanized staples. The lath or mesh must be self-furred or use self-furred fasteners. The fasteners shall be spaced 6 in. (152mm) on center vertically and shall have sufficient length to penetrate into the studs a minimum of 1 in. (25mm). A nominal ½ in. (12.7mm) thick scratch coat of Type S or Type N mortar complying with ASTM C270 shall be applied to the metal lath with enough pressure to key into the lath. When the mortar has become thumbprint dry, score surface horizontally to create a rough surface. The stones shall be adhered to the scratch coat with a nominal ½ in. (12.7mm) thick bed of Type S or Type N mortar with enough mortar to squeeze around the edges. The exposed scratch coat or surface shall not be visible in the joints between the stones.

Application to Open Wood Frame Construction:

Studs shall be spaced a maximum of 16 in. (406 mm) on center. Open stud framing shall be spaced a maximum of 16 in. (406mm) on center. The stud framing shall be covered with a minimum of one layer of a water-resistive barrier complying with either ASTM D 226 for Type 1 No. 15 felt, UBC 14-1, or a non-perforated water-resistive barrier meeting the requirements of ICC Acceptance Criteria AC38. Paperbacked galvanized expanded 3/8 in. (9.5mm) rib metal lath complying with ASTM C847, with a

minimum weight of 3.4 lb/yd² (1.8 kg/mm²), shall be attached to studs 6 in. (152.4 mm) on center vertically with galvanized roofing nails or galvanized staples. The fasteners must penetrate the stud by a minimum of 1 in. (25 mm). The lath paper must be equivalent to the requirements of the water-resistive barrier listed above. If the lath paper does not meet the water-resistive barrier requirements, apply a second layer of water-resistive barrier meeting the requirements above. The fasteners shall be spaced 6 in. (152mm) on center vertically and shall have sufficient length to penetrate into the studs a minimum of 1 in. (25mm). A nominal ½ in. (12.7mm) thick scratch coat of Type S or Type N mortar complying with ASTM C270 shall be applied to the metal lath with enough pressure to key into the lath. When the mortar has become thumbprint dry, score surface horizontally to create a rough surface. The scratch coat shall cure for a minimum of 48 hours. The stone shall be adhered to the scratch coat with a nominal ½ in. (12.7mm) thick bed of Type S or Type N mortar with enough mortar to squeeze around the edges of the stone. The exposed scratch coat or surface shall not be visible in the joints between the stones.

Application to Masonry Surfaces:

Ensure the masonry surface is clean of debris, paint, release agents or other bond break material that could affect the adherence of the stone veneer. The surface can be cleaned by acid washing or by sand or bead blasting. Spray water onto the surface after cleaning to see if water beads on the surface. If it does, clean again or apply 2.5lb/yd² (1.4 kg/m²) metal lath meeting the requirements of ASTM C847 before applying the scratch coat and stone.

A nominal ½ in. (12.7mm) thick scratch coat of Type S or Type N mortar complying with ASTM C270 shall be applied to the concrete or masonry surface and scored horizontally. The stone shall be adhered to the scratch coat with a nominal ½ in. (12.7mm) thick bed of Type S or Type N mortar with enough mortar to squeeze around the edges. The exposed scratch coat, concrete or masonry surface shall not be visible in the joints between the stones. The exposed scratch coat or surface shall not be visible in the joints between the stones.

Check with your local building code to determine if there is a requirement for weather protection for the masonry wall.

Application to Metal Building Panels:

Installation shall be as described in section 2 of the PROCEDURES section, with the exception that the lath shall be attached with corrosion-resistant self-drilling, self-tapping screws having a minimum ½ in (12.7mm) length with a 3/8 in. (9.5mm) diameter head. The fastener must have enough length to penetrate past the inside metal surface by a minimum of 3/8" (9.5 mm). The metal panels shall be a minimum of No. 18 gage galvanized steel with a minimum base metal thickness of 0.0478 in. (1.21 mm).

Flashing

All flashing must be installed in accordance with building code requirements. To maintain the weather-resistance of the exterior wall on which the stone products are installed, rigid, corrosion-resistant flashing and a means of drainage shall be installed at all penetrations and terminations of the stone cladding. Flashing type and locations shall be in accordance with the requirements of the applicable code. Dutch Quality Stone recommends terminating stone installations 4" above the earth and 2" above paved surfaces with a weep screed or code approved flashing to provide for drainage.

Cleanup

To remove mortar and light scuffing, clean immediately with water and a soft nylon brush. Mortar is difficult to remove once bonded to the face of the stone; therefore, it is important to clean the day of installation.

Precautions

Dutch Quality Stone recommends using a water repellent in exterior application with above average moisture exposure to help seal mortar joints and to limit the amount of moisture penetration. Sealer should be penetrating, breathable, and suitable for use with manufactured stone veneer. Test sealer in an inconspicuous location for any color change. On exterior applications, the improper use or absence of flashing and the improper termination of stone can create a higher risk of damage by water infiltration.

Flash all penetrations, sills, and terminations in accordance with your local building code. Dutch Quality Stone should not be used in conjunction with any interior vapor barrier rated less permeable than 1. Stone should be installed no closer than 4" (102 mm) to paved surfaces and 2" above earth surfaces. The stone installation should terminate by using either code approved flashing or a weep screed. This will provide proper drainage help keep the stone clean.

Building Codes

Installation must comply with requirements local, state and national code jurisdictions.

6. Availability & Cost

Dutch Quality Stone is available for purchase through an established dealer network. Contact manufacturer for information on local distributors. Budget installed cost information may be obtained from a local distributor, as cost varies greatly by region

7. Warranty

Dutch Quality Stone, Inc., warrants, subject to the terms and conditions of the full written warranty, that its manufactured concrete products shall be free from defects in materials manufacturing and workmanship for a period of 50 years from the date of purchase. The manufacturer will not be liable for any cracked or damaged product due to mishandling, building settlement, improper installation, discoloration due to airborne contaminants or acts of God beyond the control of the manufacturer. This warranty is limited to the original purchaser and may not be transferred. Complete manufacturer's warranty is available upon request.

8. Maintenance

Most applications require little to no maintenance. Complete maintenance information and recommendations are available from the manufacturer. Consult Dutch Quality Stone for details.

9. Technical Services

A staff of factory trained service personnel offers design assistance and technical support. For technical assistance, contact Dutch Quality Stone.

10. Filing Systems

First Source

Manu-spec

Sweet's Catalog Files

Additional product is available from the manufacturer upon request.