



## **Technical Bulletin - Thin Rock Code Compliance**

General Shale's Rock Solid Originals™ thin veneer systems when installed as an adhered veneer application comply with the requirements of all current model building codes.



## Comply with the following codes:

- 2018 International Building Code (IBC) (Section 1404.10)
- 2018 International Residential Code (IRC) (Section 703.12)
- 2016 Building Code Requirements for Masonry Structures, Masonry Standards Joint Committee Code, ACI-530- 05/ASCE 5-05/TMS 402-05 (Section 12.3)

#### Description

General Shale rock is natural quarried stone with typical physical properties as indicated in table 1. Thin rock varies in average thickness from  $\frac{3}{4}$  to  $1\frac{1}{4}$ . The maximum product weight is less than 15 psf.

#### **Applications**

General Shale rock is applicable for installations to wood stud frame, metal stud frame, concrete masonry, and poured concrete construction. For all applications type S mortar conforming to ASTM C 270 is recommended. In hot weather, type N may be used for better workability. Thin rock units should not be installed when ambient temperatures are below 40°F unless cold weather masonry construction requirements per TMS 602-16 Section 1.8C are followed.

#### **Wood or Metal Frame Applications**

Installation shall include a water-resistive vapor-permeable barrier with a performance at least equivalent to two (2) layers of grade D paper. Preferred application is directly to cement board using Laticrete polymer modified mortar. If desired, corrosion resistant metal lath and corrosion resistant lath attachments shall be installed in accordance with ASTM C 1063 every 6" on center. Metal lath shall conform to ASTM Specification for Metal Lath C 847. Apply a  $^3/_8$ " to  $^1/_2$ " thick scratch coat to metal lath. Use a  $^1/_4$ " notched trowel and leave all notches horizontal. Allow scratch coat to cure a minimum of 24 hours. Set thin rock units in a  $^3/_8$ " to  $^3/_4$ " thick setting bed applied over scratch coat. The entire back surface of the unit must be covered with mortar. Total mortar thickness behind thin rock units shall not exceed 1  $^1/_4$ ". Allow the rock to set for 24 hours before grouting. Use a grout mixture that is the same mortar type and tool when thumbprint hard.

#### **Masonry Applications**

Thin rock may be installed directly to new concrete masonry units (CMU) or concrete surfaces. No metal lath or water- resistive barrier is required with these applications. Previously exposed surfaces that have been stained, sealed, painted, or treated should be sand blasted to insure proper mortar bond. Thin rock units shall be set in a  $^{1}/_{2}$ " to  $^{3}/_{4}$ " setting bed of type S mortar. To set thin rock units, fully butter the back side and set in place. Allow the rock to set for 24 hours before grouting. Use a grout mixture that is the same mortar type and tool when thumbprint hard.

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### Workmanship

It is essential that all voids are eliminated. The back of every unit must be completely embedded in mortar. Joints (1/2" recommended) must be full and well tooled. Dry stack patterns are NOT recommended in climates with numerous freeze thaw cycles without ensuring the dry voids are also full of mortar.

#### **Estimating**

General Shale thin rock is packaged in two container sizes with coverage as follows:

| Package Size | Flat Units  | Corner Units   |
|--------------|-------------|--|
| Large        | 100 sq. ft. | 100 linear ft. (approx. 75 sq. ft.)                          |
| Small        | 5 sq. ft.   | 5 linear ft. (approx. 3 <sup>3</sup> / <sub>4</sub> sq. ft.) |

Quantities based on 1/2" mortar joint, add 30% for dry stacking applications. Adjust quantities for corner unit coverage as indicated above.

#### Cleaning

In general, thin rock units should be kept clean as work progresses. Mortar smears should be removed by gentle dry brushing at the end of work periods. For general cleaning, bucket and brush hand cleaning methods described in BIA Technical Note #20, with non-acidic detergent cleaners is recommended. Pressure wash cleaning methods should not be used.

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