

Thin Rock System Code Compliance

Robinson Rock thin rock veneer systems when installed as an adhered veneer application comply with the requirements of all current model building codes.

Comply with the following codes:

- 2006 International Building Code (IBC) (Section 1405.9)
- 2006 International Residential Code (IRC) (Table R703.4 Note Z)
- 2005 Building Code Requirements for Masonry Structures, Masonry Standards Joint Committee Code, ACI-530-05/ASCE 5-05/TMS 402-05 (Sections 6.1 and 6.3)
- 1999 Standard Building Code (SBC)
- 1997 Uniform Building Code (UBC)

Description

Robinson Rock is natural quarried stone with typical physical properties as indicated in table 1. Thin rock varies in average thickness from ${}^{3}/{}_{4}$ " to 1 ${}^{1}/{}_{4}$ ". The maximum product weight is less than 15 psf.

Applications

Robinson thin 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 C270 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^oF unless cold weather masonry construction requirements per ACI 530-05 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. Corrosion resistant metal lath and corrosion resistant lath attachments shall be installed in accordance with ASTM C1063 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 rock 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 $1/2^{\circ}$ to $3/4^{\circ}$ 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.

Workmanship

It is essential that all voids are eliminated. The back of every rock must be completely embedded in mortar. Joints 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

Robinson 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 ³ / ₄ 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.

Table 1 Physical Properties

Color	Mineralogy	Absorption	Density (cu. ft.)	Compressive Strength Dry Perpendicular (psi)	Freeze/Thaw
Adirondack	Sandstone	2.08%	153	13,000	Passed
Alpirsbach	Sandstone	1.31%	158	15,500	Passed
Arapaho	Sandstone	2.28%	153	15,900	Passed
Arrowhead	Sandstone	2.70%	155	17,660	Passed
Aspenbark	Sandstone	1.29% - 2.14%	148 – 155	5,700 - 8,200	Passed
Blackfield	Sandstone	2.61%	149	6,900	Passed
Blackhills	Sandstone	1.71%	149	16,300	Passed
Blueriver	Granite/Sandstone	0.19% - 2.43%	149 – 188	6,500 – 16,500	Passed
Cherokee	Sandstone	1.71%	151	16,300	Passed
Coalcreek	Sandstone	2.80%	161	13,340	Passed
Coppercliff	Sandstone	3.55%	148	9,500	Passed
Goldrush	Sandstone	1.03% - 3.55%	148 – 161	8,300 – 16,800	Passed
Greycastle	Limestone	1.78%	159	10,600	Passed
Indiansummer	Sandstone	2.28%	153	15,900	Passed
Kensington	Sandstone	2.70%	150	13,200	Passed
Mesaridge	Sandstone	2.00%	148	16,360	Passed
Oldmill	Sandstone	3.19%	149	12,800 (dry parallel)	Passed
Regatta	Quartzite	0.32%	160	12,100	Passed
Rosa	Sandstone	2.00%	148	16,360	Passed
Sanddune	Sandstone	2.70%	155	17,660	Passed
Seabed	Limestone	3.74%	142	7,400	Passed
Sierra	Sandstone	2.70%	155	17,660	Passed
Sunset	Sandstone	2.70%	155	17,660	Passed
Suttermill	Sandstone	1.03%	161	16,800	Passed
Trailhead	Sandstone	2.49%	152	8,300	Passed
Tuscany	Sandstone	3.40%	139	13,600	Passed
Venezia	Sandstone	3.40%	139	13,600	Passed
Westcliffe	Sandstone	1.03% - 3.55%	148 – 161	5,700 - 16,800	Passed
Wintersky	Limestone	5.10%	141	7,600	Passed

The products *Sanddune*, *Mesaridge*, *Sunset*, and *Arrowhead* are intended for interior applications. If used in exterior applications, it is recommended that they not be dry-stacked. This product is made from natural materials. Some variation in color or texture may occur, and no warranties apply. Robinson Rock and all product color names listed are trademarks of Robinson Brick Company. Material Safety Data Sheets are available on request.