Thin-Clad Rainscreen Stone Cladding
04 42 26-US / 07 42 28-US

PRODUCT DESCRIPTION

BASIC USE Thin-clad units used as a stone assembly on a metal grid support framework. Assembly is site fabricated. Appropriate for use in residential, commercial and institutional building projects.

COMPOSITION AND MATERIAL Thin-Clad Rainscreen Stone Cladding Units can be either **Thin-Clad ARRIS-clip Renaissance® Units** or **Thin-Clad Adair® Clip Limestone Units**.

Thin-Clad ARRIS-clip Renaissance® Units are manufactured calcium silicate units containing no Portland cement. They are pressure-formed and autoclave cured, resulting in high-density, severe weathering modular units, with one or more finished faces. They are then fabricated to the desired thickness to produce the thin units. The units may be site cut, trimmed and finished to custom lengths, shapes or sizes, as required on site.

Thin-Clad Adair® Clip Limestone Units are Adair® Limestone units that have been fabricated to the desired thickness to produce the thin units. Adair® Limestone is a dense, dolomitic limestone, quarried from the Amabel formation in the Bruce Peninsula near Wiarton, Ontario, Canada. It is a natural stone that has been selected, trimmed or cut to specified or indicated shapes or sizes.

The thin-clad clip units are installed as part of a rainscreen veneer assembly over a suitable substrate. The rainscreen veneer assembly also consists of aluminum channels, engineered screws, water blockers (open rainscreen) or backer rod and sealant (sealed rainscreen), flashing, waterproofing, and other accessory components.

SHAPES AND SIZES **Thin-Clad ARRIS-clip Renaissance® Units** are available in a variety of standard sizes:

CODE	HEIGHT	LENGTH	CORNER RETURN LENGTH	BED
RS358 CLIP	3-5/8”	23-5/8”	—	1-3/8”
RS358 CLIP RETURN	3-5/8”	22-7/8”	3-5/8”	1-3/8”
RS758 CLIP	7-5/8”	23-5/8”	—	1-3/8”
RS758 CLIP RETURN	7-5/8”	22-7/8”	3-5/8”	1-3/8”
RS115 CLIP	11-5/8”	23-5/8”	—	1-3/8”
RS115 CLIP RETURN	11-5/8”	22-7/8”	3-5/8”	1-3/8”

Additional custom shapes and sizes are available, up to a maximum length of 23-5/8” and face rise of 11-5/8”. An alternate bed depth of 2” is available. Profiles such as margins, chamfers, notches and bullnoses are available at a premium price. Refer to the Thin-Clad Profiles Guide for further information or contact your local Arriscraft representative or dealer.

Thin-Clad Adair® Limestone Clip Units are available in a variety of standard sizes:

CODE	HEIGHT	LENGTH	BED
AC12 STRETCHER	11-3/4”	47-3/4” or 71-3/4”	1-1/4”
AC12 QUIRK MITRE	11-3/4”	47-3/4” or 71-3/4”	1-1/4”
AC12 BACK-CHECKED	11-3/4”	47-3/4” or 71-3/4”	1-1/4”
AC16 STRETCHER	15-3/4”	47-3/4” or 71-3/4”	1-1/4”
AC16 QUIRK MITRE	15-3/4”	47-3/4” or 71-3/4”	1-1/4”
AC16 BACK–CHECKED	15-3/4”	47-3/4” or 71-3/4”	1-1/4”
AC24 STRETCHER	23-3/4”	47-3/4” or 71-3/4”	1-1/4”
AC24 QUIRK MITRE	23-3/4”	47-3/4” or 71-3/4”	1-1/4”
AC24 BACK-CHECKED	23-3/4”	47-3/4” or 71-3/4”	1-1/4”

Additional custom Adair® shapes and sizes are available for a premium price, up to a maximum length of 71-3/4” and face rise of 29-3/4” and with profiles such as margins, chamfers, notches and bullnoses. Refer to the Thin-Clad Profiles Guide for further information or contact your local Arriscraft representative or dealer.

TOLERANCES **Thin-Clad ARRIS-clip Renaissance® Units** are fabricated to the following tolerances:

DIMENSION	SMOOTH		ROCKED	
	STANDARD	CUSTOM	STANDARD	CUSTOM
HEIGHT	+/- 1/16”	+/- 1/8”	+/- 1/16”	+/- 1/8”
LENGTH	+/- 1/16”	+/- 1/8”	+/- 1/16”	+/- 1/8”
BED	- 1/16” TO + 1/8”	+/- 1/8”	+/- 1/4”	+/- 1/8”
KERF DEPTH	1/2” MIN.	1/2” MIN.	1/2” MIN.	1/2” MIN.
KERF TO FACE	+/- 1/16”	+/- 1/16”	+/- 1/4”	+/- 1/4”

Thin-Clad Adair® Clip Limestone Units are fabricated to the following tolerances:

DIMENSION	MEDIUM OR FINE DRESSED	
	STANDARD	CUSTOM
HEIGHT	+/- 1/16”	+/- 1/8”
LENGTH	+/- 1/16”	+/- 1/8”
BED	- 1/16” TO + 1/8”	+/- 1/8”
KERF DEPTH	1/2” MIN.	1/2” MIN.
KERF TO FACE	+/- 1/16”	+/- 1/16”

Thin-clad clip units shall exhibit a texture approximately equal to the approved sample when viewed under diffused daylight illumination at a distance of 20 feet. Minor chipping resulting from shipment and delivery shall not be grounds for rejection. Minor chips shall not be obvious under diffused daylight illumination from a 20 foot distance. Split and rocked faces are inspected for cracks and blemishes only, as chippage considerations do not apply when the desired surface texture and unit shape are intended to be uneven.

LIMITATIONS **Thin-Clad ARRIS-clip Renaissance® Units** are generally intended for above grade installations. Manufactured masonry veneer units,

regardless of their composition, are inherently absorptive, and as such, are not intended for use below grade. Manufactured units installed below grade will wick moisture from the soil that is in contact with the masonry units and create a condition known as "rising damp" in the masonry veneer.

In colder climates, **Thin-Clad ARRIS-clip Renaissance® Units** at grade may become exposed to de-icing compounds. As with other types of manufactured masonry units, calcium silicate masonry units should not be installed where they will be directly exposed to de-icing compounds used to melt snow and ice from pavements. For information about installing masonry at grade refer to the Arriscraft "At-Grade Design Ideas" brochure.

Thin-Clad Adair® Clip Limestone Units are an all-weathering, highly resistant material exhibiting "long life under hard use" characteristics. They are suitable for use in some applications where Thin-Clad ARRIS-clip Renaissance® Units may not be appropriate, such as at grade conditions.

COLORS **Thin-Clad ARRIS-clip Renaissance® Units** are available from our Fort Valley, Georgia manufacturing facility in the following standard colors:

COLOR		FINISH		
		Standard		Custom (no corners)
		Smooth	Rocked	Satin
Monochromatic	Champagne	•	•	•
	Limestone	•	•	•
	Suede	•	•	•
Monochromatic Range	Café	•	•	•
	Graphite	•	•	•
Striated	Ginger	•	•	
	Oak Ridge	•	•	
Striated Range	Garnet	•	•	•
	Magnolia	•	•	
	Merlot	•	•	•
	Montecito	•	•	•
	Sunset	•	•	•

- Monochromatic colors consist of a single hue.
- Monochromatic range colors consist of a single hue with a subtle distribution of tones that vary from unit to unit.
- Striated colors are a multi-hued blend.
- Striated range colors are a multi-hued blend and will contain a distribution of colors or shades that vary from unit to unit.

Custom colors are also available on a minimum order basis. Contact your local Arriscraft representative or dealer for additional information.

As a manufactured product, Thin-Clad ARRIS-clip Renaissance® Units are monitored for color consistency. Slight variations between batches may occur, and it is recommended that the installer mix units from different skids during installation.

Thin-Clad Adair® Clip Limestone Units are available in the following standard colors: Blue-Grey Fleuri, Blue-Grey Veined, Sepia Fleuri, Sepia Veined.

FINISHES The standard finishes for **Thin-Clad ARRIS-clip Renaissance® Units** include:

- Smooth finish: a finish achieved by lightly honing the surface with a mechanical, fine abrasive head in a wide, circular motion.
- Rocked finish: a surface finish resulting from mechanical splitting and hand-chiseling of the masonry unit to a set depth to achieve a bold rustic appearance.
- Satin finish: a uniform fine-grained finish similar to sandblasted.

The standard finishes for **Thin-Clad Adair® Clip Limestone Units** include:

- Medium-Dressed finish: a surface dressed with a mechanical honing head in a rubbing motion to remove the saw marks.
- Fine-Dressed finish: a surface dressed with a mechanical honing head in a rubbing motion to remove the saw marks, producing a smooth and even surface, with little or no gloss. No honing marks are visible.

Custom finishes may be available. Consultants should review samples prior to selecting a particular color and finish.

TECHNICAL DATA

APPLICABLE STANDARDS Required properties for **Thin-Clad ARRIS-clip Renaissance® Units** are described in ASTM C73, Standard Specification for Calcium Silicate Face Brick (Sand-Lime Brick). This standard classifies calcium silicate products as either moderate-weathering or severe-weathering depending on the material's tested physical properties of compressive strength and 24-hour absorption. Thin-Clad ARRIS-clip Renaissance® Units meet and exceed the requirements necessary to comply with the severe-weathering classification. Thin-Clad ARRIS-clip Renaissance® Units have been extensively tested and found to have the typical physical properties outlined in the table below:

PROPERTY	TEST METHOD	IMPERIAL RESULT
Density	ASTM C97	130 lb/ft^3
Modulus of Rupture	ASTM C99	793 psi

Thin-Clad Adair® Limestone Clip Units exceed the requirements of ASTM C568, Standard Specification for Limestone Dimension Stone; Class III—High Density. Units have been extensively tested and found to have the typical physical properties outlined below:

PROPERTY	TEST METHOD	IMPERIAL RESULT
Compressive Strength	ASTM C170	22,900 psi
Abrasion Resistance	ASTM C241	18.0
Absorption	ASTM C97	0.75 percent
Density	ASTM C97	167 lb/ft^3
Modulus of Rupture	ASTM C99	2,250 psi
Flexural Strength	ASTM C880	1,600 psi
Coefficient of Thermal Expansion	ASTM C531	6.0 x 10^{-6}/°F

Independent test reports available upon request.

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INSTALLATION

DELIVERY Thin-Clad Rainscreen Stone Cladding Units are delivered to the site in protective packaging.

HANDLING Lift skids with proper and sufficiently long slings or forks with protection to prevent damage to units. Protect edges and corners.

STORAGE Store Thin-Clad Rainscreen Stone Cladding Units in a manner designed to prevent damage and staining of units. Stack units on timbers or platforms at least 3" above grade. Place polyethylene or other plastic film between wood and other finished surfaces of units when stored for extended periods of time. Stored units should be covered if exposed to extreme weather conditions.

Do not use de-icing compounds to remove ice from masonry veneer surfaces.

INSTALLATION Thin-Clad Rainscreen Stone Cladding Units must be installed using approved materials and techniques for each specific installation. Refer to the ARRISCRAFT•CADD Library for applicable details. Options available are sealed rainscreen, open rainscreen and Energy Code (IECC, ASHRAE 90.1, SB-10) compliant wall systems. Construct Thin-Clad Rainscreen Stone Cladding walls in accordance with all applicable codes and standards and any local requirements stipulated by the authorities having jurisdiction.

A suitably solid substrate should be provided to support the Thin-Clad Rainscreen Stone Cladding assembly. Substrate options include:

- Wood or steel stud (16-gauge minimum) with exterior sheathing.
- Concrete masonry units (CMU).
- Poured concrete.

Other steel stud gauges or installation on other substrates may be possible. Contact Arriscraft Technical Services for information on installation over specific stud gauges or substrates. Design substrate for a maximum allowable deflection of L/360.

Thin-Clad Rainscreen Stone Cladding Units are provided with kerfs cut into the top and bottom of the units. Using the Gridworx™ installation system to anchor the units to the substrate is one method of anchoring the units to the wall system. Refer to the installation recommendations provided by Gridworx (www.gridworxwalls.com) and the appropriate Arriscraft ARRIS-clip Installation Guide.

When properly installed utilizing the Gridworx™ system, Precision Wall Systems provides a system warranty. Elimination or substitution of any materials may negate the system warranty. However, other engineered anchoring systems may be used. Contact Arriscraft Technical Services for assistance.

When filling the joints between Thin-Clad Rainscreen Stone Cladding Units in a **sealed rainscreen** installation, we recommend using a good quality backer rod and joint sealant. The installer must ensure units are adjusted in situ to align the faces prior to sealing. DOWSIL™ 790 Silicone Building Sealant or LATASIL™ silicone sealant can be used to seal joints.

An **open rainscreen** application for use with Thin-Clad Rainscreen Stone Cladding Units is also available. Joint treatment for open rainscreen is a combination of continuous colored L-brackets for horizontal joints and colored vertical water blockers for vertical joints.

Construct open rainscreen stone cladding assemblies with an adequate number of elastic movement joints, properly located to accommodate differential movement. Refer to ARRISCRAFT•NOTE (Vol. IV, No. 2) Movement Joints for Clipped or Anchored Thin Veneer for further information.

AVAILABILITY AND COST

AVAILABITY Thin-Clad Rainscreen Stone Cladding Units are available worldwide. Delivery times for orders will vary based on the complexity of the order. Arriscraft cannot be responsible for delays due to fire, acts of God, or any other cause beyond its control or which could not be reasonably foreseen. Contact Arriscraft for a list of dealers in your area.

Following the initial order and receiving full sets of architectural and structural drawings and specifications, shop drawings for Thin-Clad Rainscreen Stone Cladding Units will require approximately 5-6 weeks to prepare. Additional time should be allotted for review and comment.

COST Quoted on a project basis for job-specific manufacturing to project requirements.

WARRANTY

Arriscraft warrants its products against deterioration for the life of the building, provided the products have been erected and used according to accepted standards, within the guidelines of local building codes and as recommended by the manufacturer. Complete warranty information is outlined on the Arriscraft standard form of Product Warranty.

MAINTENANCE

Clean Thin-Clad Rainscreen Stone Cladding Units in accordance with the cleaning guidelines in Thin-Clad•CARE. Various proprietary masonry cleaning detergents and acid-based cleaning systems may alter the color of Thin-Clad Rainscreen Stone Cladding Units. Always pre-test cleaning agents and methods on the job-site mock-up panel or a small, inconspicuous area of the wall. The Consultant and/or Owner should approve the test area prior to the start of full-scale cleaning operations. Refer to ARRISCRAFT•NOTE (Vol. II, No. 2) Cleaning Masonry for further information.

Arriscraft does not recommend the application of water repellent or graffiti-proofing sealers to its thin-clad masonry veneer products.

TECHNICAL SERVICES

Arriscraft offers consultation services to assist with the preparation of details, specifications and with pricing. Enquiries are addressed promptly and without obligation.

Arriscraft distributes an integrated technical information system including:

- ARRISCRAFT•CADD: sample details which are available in .dwg, .dxf, and .pdf formats.
- ARRISCRAFT•DATA: product data sheets.
- ARRISCRAFT•NOTE: technical discussions with respect to building construction issues.
- ARRISCRAFT•SPEC: master guide specification Sections.

All of these technical resources are available to be downloaded from the Arriscraft web site at www.arriscraft.com.

Arriscraft also makes available samples for color and finish, coursing charts and copies of test reports upon request.

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