



THIN-CLAD

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Renaissance® Units



Renaissance® Units

ARRIS **tile** Units

ARRIS **clip** Units

ARRIS **panel** Units



ARRISCRAFT™
INTERNATIONAL
Thin-Clad Renaissance® Units

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Front Cover:
Christus St. John Hospital
Nassau Bay, TX
Architect Med Design

US500B 03/07

ARRISCRAFT™
INTERNATIONAL
Thin-Clad Renaissance® Units



Brett Drury Architectural Photography



Take advantage of the most comprehensive set of thin-clad materials on the market today:

- ARRIS•tile, tile that can be adhered to a suitable solid substrate
- ARRIS•clip, units simply 'clipped' to a substrate using a channel system; and
- ARRIS•panel, units that can be cast into precast concrete panels.

Thin-Clad Renaissance® Units are versatile and easy to install to suit your specific project when using one of the three optional systems. Each is surprisingly affordable. Thin-Clad Renaissance® Units have proven durability and come with Arriscraft's Lifetime Product Warranty. The nature of Thin-Clad Renaissance® Units also support "Green" product and design philosophies, such as: a lower embodied energy; post industrial recycled content; reduced transportation costs; and a zero-emitting finish for healthy interior spaces.

ARRIS•tile, ARRIS•clip and ARRIS•panel Thin-Clad Renaissance® corner units maintain the look and beauty of full bed stone installations with all of the benefits of thin-clad systems. In addition, sills, caps, watertables and bullnose profiles are available to complete the overall stone veneer.

Arriscraft International's proprietary production method ensures remarkably natural and unique color ranges and striations unmatched by other manufactured stone products.

Enhance your architectural design vision by using Thin-Clad Renaissance® Units on either the exterior or interior of your next project.



National City Library
National City, CA
Carrier Johnson Architects

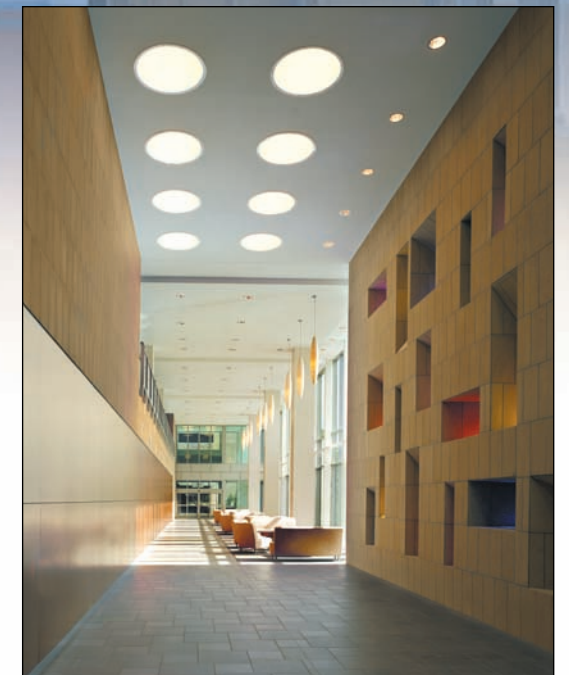
ARRIS•tile

ARRIS•tile Renaissance® Units have become a favorite for classic interior designs and are equally suited for exterior applications in warm southern climates. Just as with thin brick, ARRIS•tile Renaissance® Units can be adhered to suitable solid substrates. Developed for vertical wall applications, ARRIS•tile Renaissance® Units may be site cut, trimmed and finished to custom lengths, shapes or sizes.

ARRIS•tile Renaissance® Units effectively reduce transportation, installation and structural costs, and this allows for a cost-effective installation when compared to full bed masonry or stone applications.

The appearance and beauty of a traditional full bed stone installation can be achieved with return corner units. Natural stone color ranges or striations will enhance the design of your project.

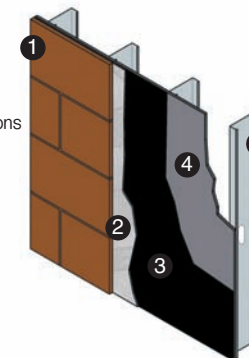
ARRIS•tile Renaissance® Units are available in standard nominal 4", 8" and 12" face rises; nominal 24" lengths; and a 3/4" thickness.



Christus St. Elizabeth Hospital
Beaumont, TX
HOK Architects

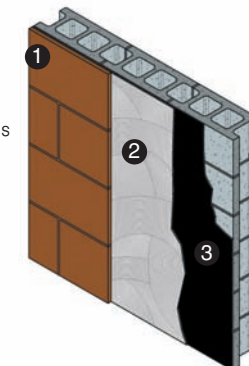
Exterior/Interior - TCNA W244 (modified)

- ARRIS•tile Renaissance® Units
- Liquid latex modified thin-set mortar
- Waterproofing membrane for exterior applications
- Cementitious backer board
- Steel stud or wood stud



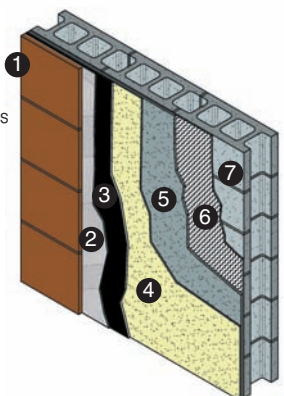
Exterior/Interior - TCNA W202

- ARRIS•tile Renaissance® Units
- Liquid latex modified thin-set mortar
- Waterproofing membrane for exterior applications
- Masonry or poured concrete wall



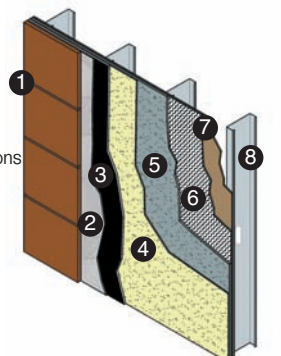
Exterior/Interior - TCNA W201

- ARRIS•tile Renaissance® Units
- Liquid latex modified thin-set mortar
- Waterproofing membrane for exterior applications
- Mortar bed
- Scratch coat
- Metal lath
- Masonry or poured concrete wall



Exterior/Interior - TCNA W241

- ARRIS•tile Renaissance® Units
- Liquid latex modified thin-set mortar
- Waterproofing membrane for exterior applications
- Mortar bed
- Scratch coat
- Metal lath
- Cleavage membrane
- Steel stud or wood stud





ARRISclip

ARRISclip Renaissance® Units are a revolutionary idea for the installation of a cladding system. These Thin-Clad units are simply clipped to a substrate using the Gridworx™ pre-engineered channel system making it an easy and efficient means of installation.

ARRISclip Renaissance® Units offer tremendous construction scheduling flexibility as they do not have to be installed sequentially. ARRISclip Renaissance® Units provide scheduling protection against extreme weather conditions as hot and cold weather become minor factors in the construction of the veneer. ARRISclip Renaissance® Units maintain a drainage cavity behind the units which is important in cold and wet climates, making it suitable for wet or dry areas and areas exposed to freeze-thaw cycles.

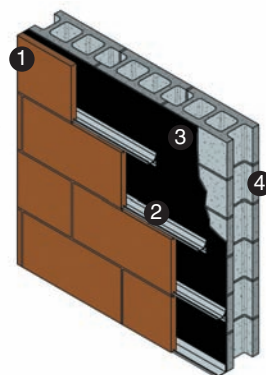
Replacement of broken, damaged or graffiti-stained units is easy and quick, further enhancing the cost efficiency and benefits of this system.

Spectacular color ranges and striations are unique to Arriscraft International and unmatched in the industry, allowing designers the opportunity to create beautiful stone buildings at a fraction of the cost.

ARRISclip Renaissance® Units are available in standard nominal 4", 8" and 12" face rises nominal 24" lengths, and a 1-1/4" thickness.

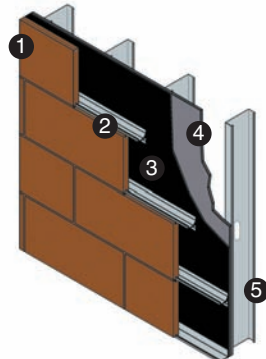
Exterior/Interior

- 1 ARRISclip Renaissance® Units
- 2 Gridworx's™ extruded aluminum channel hangers
- 3 Waterproofing membrane for exterior applications
- 4 Masonry or poured concrete wall



Exterior/Interior

- 1 ARRISclip Renaissance® Units
- 2 Gridworx's™ extruded aluminum channel hangers
- 3 Waterproofing membrane for exterior applications
- 4 Exterior grade sheathing
- 5 Steel stud or wood stud



Office Tower
Milwaukee WI
Korb Tredo Architect, Inc.



"Arriscraft Thin-Clad Stone combined with the Gridworx™ Stone Anchoring System is unique, easy to use and very adaptable to different substrates. I look forward to using the ARRISclip system on many projects to come."

Karen M. Spence
Statz Restoration & Engineering Co., Inc.

ARRISpanel

ARRISpanel Renaissance® Units are ideal for casting into the face of precast concrete panels because they have exceptionally tight tolerances. Precast panels can be prepared in advance, off site, enabling strict quality assurance. Working in a controlled environment, protected from inclement weather, also minimizes installation costs. ARRISpanel Renaissance® Units can also be precast on site into tilt-up precast panels.

Rapid jobsite installation is achievable when using precast and tilt-up panels, effectively reducing overall construction time. ARRISpanel Renaissance® Units especially suit short construction schedules and high rise projects where traditional full-bed masonry cannot normally be considered.

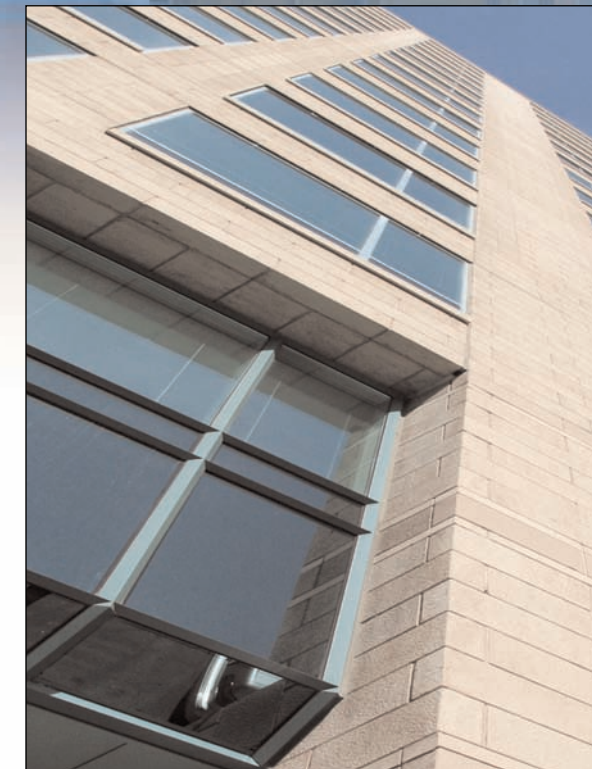
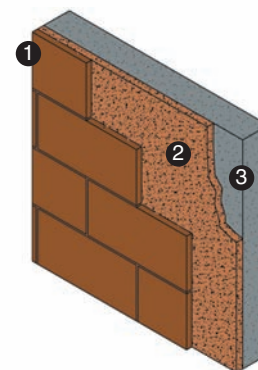
ARRISpanel Renaissance® Units are suitable for wet or dry areas and in areas exposed to freeze-thaw cycles. ARRISpanel Renaissance® Units provide a variety of colors and sizes to achieve a beautiful stone building. The true look of a traditional full-bed stone installation can be achieved with the use of return corner units.

ARRISpanel Renaissance® Units are available in standard nominal 4", 8" and 12" face rises; nominal 24" lengths; and a 1-1/4" thickness.

Exterior/Interior

- 1 ARRISpanel Renaissance® Units
- 2 Precast concrete face mix
- 3 Precast concrete back mix

Panel is anchored to building structure with specially designed anchors provided by the precast concrete panelizing company.



Office Tower
Toronto, ON
Brisbin Brook Beynon Architects



Wayne State University
Detroit, MI
Rossetti Architects

Photo by Maylone.com

PRODUCT NAME

THIN-CLAD CALCIUM SILICATE UNITS

ARRIS•tile Renaissance® Units - 09300 (09 30 00)
 ARRIS•clip Renaissance® Units - 04850 (04 73 17)
 ARRIS•panel Renaissance® Units - 04840 (04 73 19)

PRODUCT DESCRIPTION

BASIC USE Thin calcium silicate units used for vertical veneer wall applications in residential, commercial and institutional buildings. Applications include: adhered tile installations, anchored or clipped veneer installations, and precast concrete panelized applications.

COMPOSITION AND MATERIALS Thin-Clad 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.

SHAPES AND SIZES Thin-Clad Renaissance® Units are available in a variety of standard sizes in three unique systems:

ARRIS•tile Renaissance® Units

CODE	HEIGHT	LENGTH	BED*
RS358ATRU	3-5/8"	23-5/8"	3/4"
RS758ATRU	7-5/8"	23-5/8"	3/4"
RS115ATRU	11-5/8"	23-5/8"	3/4"

ARRIS•clip Renaissance® Units

CODE	HEIGHT	LENGTH	BED
RS358ACRU	3-5/8"	23-5/8"	1-1/4"
RS758ACRU	7-5/8"	23-5/8"	1-1/4"
RS115ACRU	11-5/8"	23-5/8"	1-1/4"

ARRIS•panel Renaissance® Units

CODE	HEIGHT	LENGTH	BED
RS358APRU	3-5/8"	23-5/8"	1-1/4"
RS758APRU	7-5/8"	23-5/8"	1-1/4"
RS115APRU	11-5/8"	23-5/8"	1-1/4"

* Due to the allowable weight restrictions of 15 lbs/ft² for adhered units, the thickness of the ARRIS•tile units is limited to a maximum of 3/4" with rocked faced finishes and 1-1/4" with smooth faced finishes.

Corner units with 3-5/8" returns can be provided for smooth and rocked textures for each of the Thin-Clad Renaissance® Unit systems. Return corner units are 22-7/8" long.

Additional custom shapes and sizes are available, up to a maximum length of 23-5/8" and face rise of 11-5/8". Profiles such as margins, chamfers, notches and bullnoses are available at a premium price. Contact your local Arriscraft representative or dealer for additional information.

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

- Unit Length: ± 1/16"
- Unit Height: ± 1/16"
- Deviation from square, with the measurement taken using the longest edge as the base will be ± 1/16"
- Bed Depth Thickness: ± 1/8"
- Custom Unit Dimensions: ± 1/8"

Thin-Clad Renaissance® Units are shop inspected to be sound and free of cracks, chips or other defects that would affect the serviceability or strength of the unit, or become exposed once installed and visible when viewed from a distance of not less than 10 feet under diffused light. Units with 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.

COLORS AND FINISHES Thin-Clad Renaissance® Units are available from our Fort Valley, Georgia manufacturing facility in the standard colors and finishes listed in Table 2.

Standard Finishes and Colors Table 2		
Colors	Finish	
	Smooth	Rocked
Cotton	●	●
Cream	●	●
Oyster	●	●
Caramel*	●	●
Hazel*	●	●
Pecan*	●	●
Tan*	●	●
Titanium*	●	●
Verde*	●	●
Sedona*	●	●
Aspen**	●	●
Maple**	●	●
Savannah**	●	●

* Striated colors are a multi-tone blend. Refer to actual color samples.

** These units consist of a range of colors. The distribution of colors within each unit will vary.

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

The standard finishes are described below:

- Smooth 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.

Thin-Clad 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. Consultants should review samples prior to selecting a particular color and finish.

LIMITATIONS Manufactured Thin-Clad products are generally intended for above-grade installations. Manufactured units are inherently absorptive, and as such, are not intended for use below grade. Units installed below grade will wick moisture from the soil that is in contact with the units, effectively creating a condition known as "rising damp" in the veneer.

In colder climates, Thin-Clad veneer walls at grade may also become exposed to de-icing compounds. As with other types of manufactured units, calcium silicate units should not be installed where they will be directly exposed to de-icing compounds used to melt snow and ice from pavements.

The function of caps and copings is to prevent moisture from entering the building envelope. As most manufactured units are produced in relatively short lengths, when they are used as a cap or coping material, this results in more joints between the units when compared to other longer products. The joints are the most likely entry point for moisture to infiltrate the building envelope. As such, it is generally recommended that longer components such as quarried stone or metal parapet cap flashing be used to reduce the number of joints and thereby limit the potential infiltration points within the cap assembly.

ARRIS•tile RENAISSANCE® UNITS ARRIS•tile adhered veneer walls are intended to be a barrier wall system. This means that the tile and grout form a barrier to the passage of moisture. If moisture does manage to enter the wall system through the "barrier" or by some other means, the moisture may over time affect the integrity of the system. The designer must consider climatic conditions and as a result, it is critical when using a barrier wall that the system be designed to preclude moisture from entering the wall system.

TECHNICAL DATA

APPLICABLE STANDARDS Required properties for calcium silicate units are described in ASTM C73-05, 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 Renaissance® Units meet and exceed the requirements necessary to comply with the severe-weathering classification.

They have been extensively tested using standardized test methods, and their typical physical properties are outlined in Table 3.

Typical Physical Properties Table 3		
Property	Test Method*	Georgia Material
Compressive Strength	ASTM C67	8845 psi
	ASTM C170	6815 psi
Absorption	ASTM C97	10.3%
Density	ASTM C97	120 lbs/ft ³
Modulus of Rupture	ASTM C99	800 psi
Freeze-Thaw Durability	ASTM C67	Condition Excellent, No Observable Distress

*Independent test reports available upon request

INSTALLATION

DELIVERY Thin-Clad Renaissance® 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 the units in a manner designed to prevent damage and staining. 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 long periods of time.

Cover stored units if exposed to extreme weather conditions. Do not use de-icing compounds to remove ice from Thin-Clad Renaissance® Unit surfaces.

PREPARATORY WORK Extreme weather conditions may require preparatory work of all materials.

INSTALLATION Thin-Clad Renaissance® Units must be installed using approved materials and techniques for each specific installation.

ARRIS•tile RENAISSANCE® UNITS Construct ARRIS•tile Renaissance® Unit veneers in accordance with all applicable codes and standards and any local requirements stipulated by the authorities having jurisdiction.

Installation should be over a suitable solid substrate. Designers should conform to the relevant design details contained in the latest edition of the Tile Council of North America's (TCNA), *Handbook for Ceramic Tile Installation* for the proper installation. The TCNA design details outline the recommended setting materials and installation procedures specific to a particular set of design conditions. Beyond these recommendations, one of the thin-set mortar system manufacturers, such as Mapei (www.mapei.com), Laticrete International (www.laticrete.com), or Custom Building Products (www.custombuildingproducts.com) should be consulted.

A grout should be used to fill the joints between units and applied using a grout bag. The joints should then be tooled. For further information about the recommended type of grout that should be used consult with the same manufacturer that provided the thin-set mortar. Construct tile veneers with an adequate number of elastic movement joints, properly located to accommodate differential movement. Refer to the latest edition of the Tile Council of North America's (TCNA) *Handbook for Ceramic Tile Installation* for further information.

ARRIS•clip RENAISSANCE® UNITS A suitably solid substrate should be provided to support the anchors and ARRIS•clip Renaissance® Units. ARRIS•clip Renaissance® 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).

With respect to filling the joints between individual ARRIS•clip Renaissance® Units, a good quality backer-rod and sealant should be used to seal the outer face of the joint. Mortar may be used in the joints up to a height of 15 feet.

ARRIS•panel RENAISSANCE® UNITS The precaster will require a liner to be able to cast the ARRIS•panel Renaissance® Units into a precast panel. The liner is designed to provide the shape of the joints between the units and to prevent seepage of the concrete mix onto the face of these same units. For further information on the appropriate liner we suggest consulting a liner manufacturer.

The precaster will place the ARRIS•panel Renaissance® Units in the liner face down. The precaster can then pour the required concrete mix over the liner and back of the ARRIS•panel Renaissance® Units. Once the concrete has sufficiently cured the panel can be lifted by the precaster and the liner removed. A multiple use liner can be re-used. A single use liner will be removed by using a pressure washer using low pressure and is then discarded.

ARRIS•panel Renaissance® Units may be ordered with or without a wax coating on the unit faces. The need for the wax coating is project dependent, and will depend upon the expected bleed of the concrete onto the face of the units and whether the precaster will use an acidic cleaner to wash the panels. For further information please contact your local Arriscraft representative or dealer.

Any wax coating on the face of the ARRIS•panel Renaissance® Units should be removed by the precaster by using steam after cleaning operations are complete.

AVAILABILITY AND COST

AVAILABILITY Thin-Clad Renaissance® Units are available worldwide. Delivery times for orders will vary based on the complexity of the order. Arriscraft International 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 International for a list of dealers in your area.

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

WARRANTY

Arriscraft International 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 International standard form of Product Warranty.

Other proprietary Thin-Clad installation systems are available. The designer must contact the manufacturer's representatives of these other systems for application details and warranty information with regard to the system as a whole including the thin-clad units.

MAINTENANCE

Clean Thin-Clad Renaissance® Units in accordance with the cleaning guidelines in ARRISCRAFT•CARE. Various detergents and cleaning systems can change the color of Thin-Clad Renaissance® products. Acid-based cleaning agents will darken the color of the 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. Arriscraft International does not recommend the application of water repellent or graffiti-proofing sealers to its Thin-Clad products.

TECHNICAL SERVICES

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

RELATED REFERENCES

Arriscraft International distributes an integrated technical information system, comprised of the following components:

- ARRISCRAFT•DATA are product data sheets;
 - ARRISCRAFT•NOTE are technical discussions with respect to building construction issues; and
 - ARRISCRAFT•SPEC are master guide specification sections.
- These technical resources are available for download at www.arriscraft.com. Arriscraft International also makes available samples for color and finish, coursing charts, and copies of test reports upon request.



Georgia Standard Finishes and Colors

"It was a pleasure to work with you and your team. I was very impressed with the quick response, total team involvement, and the willingness to stand behind your product. The total system cost, speed and ease of the install were very beneficial in making the project a success. We look forward to working with your team on future projects."

Matt Burow
Catalyst Construction, LLC

"The ARRIS-clip system, along with design support from Arriscraft and Building Stone Products (our local supplier), provided us with the confidence we sought for this fast-track renovation project with high quality expectations. While the ease and flexibility of installation was important given the harsh weather conditions expected in our schedule, what excited us most was the capability of this product to satisfy our contemporary design aesthetic and high level of detailing."

Jeff Tredo,
Korb Tredo Architect, Inc.

Maple, Aspen, and Savannah consist of a range of colors. As the colors within each unit are different, the single photos presented do not depict the full range of possible colors and combinations.

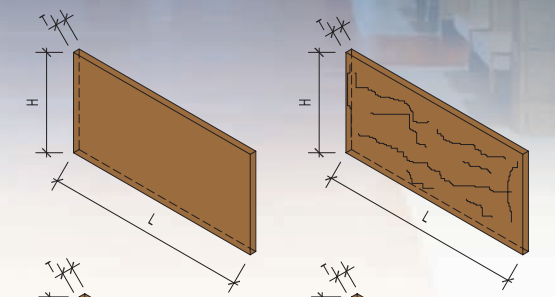
Please refer to large samples and/or project photographs for a better representation of the overall range.

Refer to www.arriscraft.com for current standard color listings.

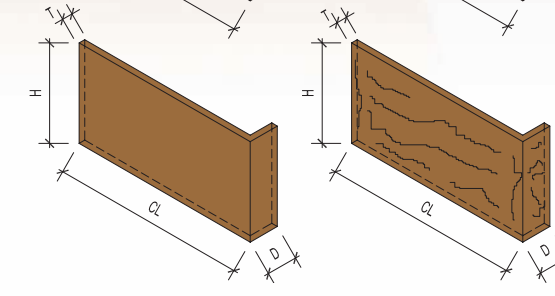
	SMOOTH		ROCKED	
	Image	Image	Image	Image
MONOTONE COLORS	Cotton			
	Cream			
	Oyster			
STRIATED COLORS	Caramel			
	Hazel			
	Pecan			
	Tan			
	Titanium			
	Verde			
RANGE COLORS	Sedona			
	Aspen			
	Maple			
Savannah				

ARRIS-tile

HEIGHT (H)	LENGTH (L)	STD. THICKNESS (T)
3-5/8"	23-5/8"	3/4"
7-5/8"	23-5/8"	3/4"
11-5/8"	23-5/8"	3/4"

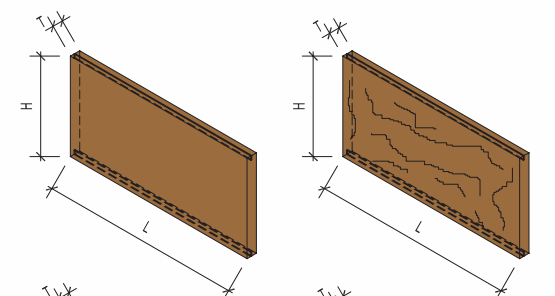


HEIGHT (H)	LENGTH (CL)	STD. DEPTH (D)	STD. THICKNESS (T)
3-5/8"	22-7/8" MAX.	3-5/8"	3/4"
7-5/8"	22-7/8" MAX.	3-5/8"	3/4"
11-5/8"	22-7/8" MAX.	3-5/8"	3/4"

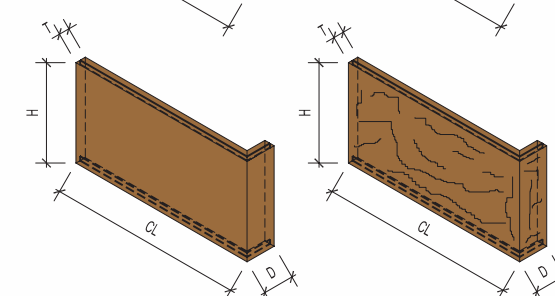


ARRIS-clip

HEIGHT (H)	LENGTH (L)	STD. THICKNESS (T)
3-5/8"	23-5/8"	1-1/4"
7-5/8"	23-5/8"	1-1/4"
11-5/8"	23-5/8"	1-1/4"

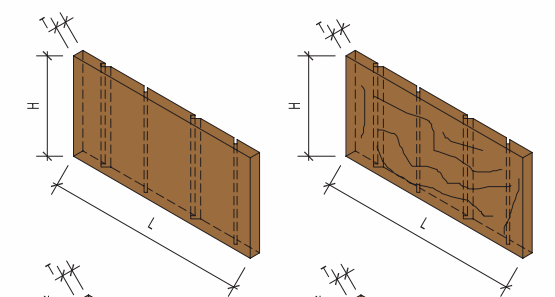


HEIGHT (H)	LENGTH (CL)	STD. DEPTH (D)	STD. THICKNESS (T)
3-5/8"	22-7/8" MAX.	3-5/8"	1-1/4"
7-5/8"	22-7/8" MAX.	3-5/8"	1-1/4"
11-5/8"	22-7/8" MAX.	3-5/8"	1-1/4"



ARRIS-panel

HEIGHT (H)	LENGTH (L)	STD. THICKNESS (T)
3-5/8"	23-5/8"	1-1/4"
7-5/8"	23-5/8"	1-1/4"
11-5/8"	23-5/8"	1-1/4"



HEIGHT (H)	LENGTH (CL)	STD. DEPTH (D)	STD. THICKNESS (T)
3-5/8"	22-7/8" MAX.	3-5/8"	1-1/4"
7-5/8"	22-7/8" MAX.	3-5/8"	1-1/4"
11-5/8"	22-7/8" MAX.	3-5/8"	1-1/4"

