


PRODUCT DESCRIPTION

BASIC USE A calcium silicate building stone unit used in full-bed masonry veneer construction for both interior and exterior applications. Appropriate for use in residential, commercial and institutional building projects.

For thin-clad adhered masonry veneer assembly applications, refer to ARRISCRAFT•DATA 04 73 15 / 04 43 13.16 Thin-Clad Adhered Masonry Veneer Assembly.

COMPOSITION AND MATERIAL Calcium Silicate Building Stone 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. Refer to ARRISCRAFT•NOTE – Calcium Silicate Masonry Units for further information. The units may be site cut, trimmed and finished to custom lengths, shapes or sizes, as required on site.

SHAPES AND SIZES Arriscraft Building Stone products are available in a variety of standard sizes:

CAMBRIDGE PRODUCED BUILDING STONE

| CODE | HEIGHT | LENGTH | BED |
|------------------------------------|-------------------|--|-------------------------------|
| Citadel® Building Stone | | | |
| CIT/FRE23 | 60mm (2-3/8") | Various lengths up to 600 mm (23-5/8") | 92 mm (3-5/8") |
| CIT36 | 97 mm (3-13/16") | Various lengths up to 600 mm (23-5/8") | 92 mm (3-5/8") |
| CIT52 | 133 mm (5-1/4") | Various lengths up to 600 mm (23-5/8") | 90 mm (3-1/2") |
| CIT81 | 206 mm (8-1/8") | Various lengths up to 600 mm (23-5/8") | 90 mm (3-1/2") |
| Edge Rock Building Stone | | | |
| EDG50 | 125 mm (4-15/16") | Various lengths up to 600 mm (23-5/8") | 90 mm ± 13 mm (3 1/2" ± 1/2") |
| EDG102 | 260 mm (10-1/4") | Various lengths up to 600 mm (23-5/8") | 90 mm ± 13 mm (3 1/2" ± 1/2") |
| Fresco Building Stone | | | |
| CIT/FRE23 | 60 mm (2-3/8") | Various lengths up to 600 mm (23-5/8") | 92 mm (3-5/8") |
| FRE52 | 133 mm (5-1/4") | Various lengths up to 600 mm (23-5/8") | 90 mm (3-1/2") |
| FRE81 | 206 mm (8-1/8") | Various lengths up to 600 mm (23-5/8") | 90 mm (3-1/2") |
| Laurier Building Stone | | | |
| LAU23 | 60 mm (2-3/8") | Various lengths up to 600 mm (23-5/8") | 95 mm (3-3/4") |
| LAU52 | 133 mm (5-1/4") | Various lengths up to 600 mm (23-5/8") | 90 mm (3-1/2") |
| LAU81 | 206 mm (8-1/8") | Various lengths up to 600 mm (23-5/8") | 90 mm (3-1/2") |
| LAU11 | 279 mm (11") | Various lengths up to 600 mm (23-5/8") | 90 mm (3-1/2") |
| Metropolitan Building Stone | | | |
| MET20 | 59 mm (1-15/16") | Various lengths up to 803 mm (31-5/8") | 92 mm (3-5/8") |
| MET42 | 108 mm (4-1/4") | Various lengths up to 803 mm (31-5/8") | 92 mm (3-5/8") |
| MET64 | 165 mm (6-1/2") | Various lengths up to 803 mm (31-5/8") | 92 mm (3-5/8") |

Continued...

| CODE | HEIGHT | LENGTH | BED |
|---|-----------------|---|------------------------------|
| Midtown Building Stone | | | |
| MID21 | 54 mm (2-1/8") | Fragmented lengths up to 600 mm (23-5/8") | 73 mm ± 3 mm (2-7/8" ± 1/8") |
| MID35 | 92 mm (3-5/8") | Fragmented lengths up to 600 mm (23-5/8") | 73 mm ± 3 mm (2-7/8" ± 1/8") |
| MID57 | 149 mm (5-7/8") | Fragmented lengths up to 600 mm (23-5/8") | 73 mm ± 3 mm (2-7/8" ± 1/8") |
| Shadow Stone® Building Stone | | | |
| SHA/UL22 | 59 mm (2-5/16") | Various lengths up to 600 mm (23-5/8") | 92 mm ± 6 mm (3-5/8" ± 1/4") |
| SHA/UL50 | 127 mm (5") | Various lengths up to 803 mm (31-5/8") | 82 mm ± 6 mm (3-1/4" ± 1/4") |
| SHA75S | 194 mm (7-5/8") | Various lengths up to 600 mm (23-5/8") | 86 mm ± 6 mm (3-3/8" ± 1/4") |
| Urban Ledge Stone Building Stone | | | |
| SHA/UL22 | 59 mm (2-5/16") | Various lengths up to 600 mm (23-5/8") | 92 mm ± 6 mm (3-5/8" ± 1/4") |
| UL35 | 92 mm (3-5/8") | Various lengths up to 772 mm (30-3/8") | 89 mm ± 6 mm (3-1/2" ± 1/4") |
| SHA/UL50 | 127 mm (5") | Various lengths up to 803 mm (31-5/8") | 82 mm ± 6 mm (3-1/4" ± 1/4") |

Shipped material also includes a percentage of shorter random length units which can be used by the installer in creating the ashlar bond patterns and around openings and at internal corners. Contact your local Arriscraft representative or dealer for additional information.

TOLERANCES Arriscraft Building Stone products are fabricated to a tolerance of 3 mm (1/8"). Split, rocked, or tumbled units, by the nature of their random finish, may have dimensional variations exceeding this value. Units shall exhibit a texture approximately equal to the approved sample when viewed under diffused daylight illumination at a distance of 6 Metre (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 6 Metre (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 Manufactured masonry products 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, masonry walls 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.

The function of caps and copings is to prevent moisture from entering the

building envelope through the top of the wall. As most manufactured masonry units are produced in relatively short lengths, if they are used as a cap or coping material, more mortar joints are required between the individual units. These mortar joints are the most likely entry point for moisture to infiltrate the building envelope. As such, it is generally recommended within the industry that longer components, such as quarried stone, cast stone, or metal parapet cap flashing, be used to reduce the number of joints thereby limiting the areas that may allow moisture infiltration of the building envelope.

COLOURS AND PATTERNS Standard colours for each of the Building Stone products are as follows:

CAMBRIDGE PRODUCED BUILDING STONE

- Citadel®: Algonquin, Cashmere, Desert Brown, Driftwood, French Country, Infinity, Manitoulin Mist, Traditional Grey, Willow Breeze
- Edge Rock: *Collingwood, Delta, Glacier, *Steel Grey
- Fresco: Eclipse, Greige, Manitoulin Mist, Silverado, Traditional Grey, Twilight
- Laurier: Charcoal, Ivory White, Mahogany, Maple Sugar, Midnight Grey, Onyx, Opal, Walnut
- Metropolitan: Greyrock, Nutmeg, Oakmoss, White
- Midtown: Blackcomb, Byward, Granville, Inglewood, Ville-Marie, Yorkville
- Shadow Stone®: Avalanche, Collingwood, Driftwood, Dusk, Sierra, Steel Grey, Tacoma
- Urban LedgeStone: Avalanche, Collingwood, Driftwood, Dusk, Steel Grey, Tacoma

*Edge Rock in colours Steel Grey and Collingwood is offered in a SHA/UL50 and EDG102 combination.

Colours within each product group may be blended in a wall to achieve a more natural appearance. Information pertaining to common colour blends for each product line is available upon request. Not all colours within a product group are available in all sizes. Contact Arriscraft for a detailed listing of colours and sizes available. Custom colours are also available on a minimum order basis. Contact your local Arriscraft representative or dealer for additional information.

As a manufactured product, Arriscraft Building Stone products are monitored for colour consistency. Slight variations between batches may occur, and it is recommended that the installer mix units from different skids during installation.

FINISHES Standard surface finishes for each Building Stone product include Sandblasted, Split, Rocked, Tumbled, and Sawn in various combinations.

Consultants should review samples prior to selecting a particular colour and finish.

TECHNICAL DATA

APPLICABLE STANDARDS Required properties for Calcium Silicate Masonry 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.

Calcium Silicate Building Stone products meet and exceed the requirements necessary to comply with the severe-weathering classification.

INSTALLATION

DELIVERY Arriscraft Building Stone is 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 Arriscraft Building Stone 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 surfaces.

PREPARATORY WORK It may be advantageous under hot, dry weather or windy conditions to pre-dampen the units prior to placement in the wall. Damp units should be surface dry at the time of placement.

For additional information when constructing in hot or cold weather refer to the ARRISCRAFT•TECH bulletins titled Hot Weather Masonry Construction and Cold Weather Masonry Construction.

INSTALLATION Arriscraft Building Stone products must be installed using approved materials and techniques for each specific installation. Refer to the ARRISCRAFT•CADD Library for applicable details.

Construct masonry veneer with an adequate number of elastic movement joints, properly located to accommodate differential movement. Refer to ARRISCRAFT•NOTE – Building Movement Joints for further information.

Construct masonry veneer in accordance with CSA A371, Masonry Construction for Buildings in Canada, and any local requirements stipulated by the authorities having jurisdiction.

Mortar joints between units in any direction should be consistent to the following thicknesses:

Mortar for unit masonry veneer should be a Type N Portland cement-lime mix, proportioned to a 1:1:6 ratio.

The ratio refers to:

- 1 part Portland cement (CSA A3001, Type GU)
- 1 part hydrated lime (ASTM C207, Type S—Special)
- 6 parts masonry sand (CSA A179-14)

When properly combined with the appropriate quantity of water, it will produce a general-purpose mortar, exhibiting good workability and board life in its plastic state, and good durability and flexibility in its hardened state, and conforming to CSA A179-14, Mortar and Grout for Unit Masonry. For further information, refer to ARRISCRAFT•NOTE – Mortar for Masonry Veneer.

Project specific considerations may necessitate the use of other mixes at the designer's discretion. For applications where flexural strength is of particular importance to the design, consult with our Technical Services Department for further recommendations.

Arriscraft recommends constructing masonry veneer with proper drainage mechanisms, including clear draining air spaces, through wall flashing membranes and weep hole vents. The air spaces must be at least 1" wide, and kept clear of debris, protrusions, mortar fins and droppings. Weep hole vents should be installed at the same level as through wall



flashing membranes and spaced not more than 600 mm (24") on center horizontally. Refer to ARRISCRAFT•NOTE – Moisture Management for further information.

Arriscraft Building Stone products must be connected to a structural substrate with an approved masonry connection system, designed by the consultant for each specific installation. Refer to ARRISCRAFT•NOTE – Connectors – Part I, Masonry Ties.

BOND PATTERNS Arriscraft Building Stone products are each installed using different bonding patterns. These are typically described as a percentage ratio, from the smallest to the largest sized units, as follows:

Refer to the Arriscraft Mason's Instructions for illustrations of each recommended bond pattern.

Mortar joint between units in any direction should be consistent to the following thicknesses:

| JOINT | PRODUCTS |
|-----------------------------|--|
| 10 mm (3/8") | Edge Rock, Metropolitan, Shadow Stone®, Urban LedgeStone |
| 13 mm (1/2") | Citadel®, Fresco, Laurier |
| 10mm or 12mm (3/8" or 1/2") | Midtown |

Standard bond patterns may also be modified by changing the ratio of small to large units. Contact your local Arriscraft representative or dealer for specific information on custom bond patterns.

AVAILABILITY AND COST

AVAILABILITY Arriscraft Building Stone products are available worldwide, as

| PRODUCT | 2-UNIT | 3-UNIT | 4-UNIT |
|----------------------------|--------|----------|-------------|
| Citadel® | | 20:40:40 | 20:20:40:20 |
| Citadel® (no CIT36) | | 25:50:25 | |
| Edge Rock | 75:25 | | |
| Fresco | | 25:50:25 | |
| Laurier | | 20:50:30 | 10:40:30:20 |
| Metropolitan (Ashlar) | | 22:45:33 | |
| Metropolitan (Coursed) | | 17:33:50 | |
| Shadow Stone® | 60:40 | 20:50:30 | |
| Urban LedgeStone (Ashlar) | | 20:50:30 | |
| Urban LedgeStone (Coursed) | | 22:33:45 | |

full-bed masonry units. Delivery times for orders will vary based on the complexity of what is required. 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.

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 masonry 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

Arriscraft Building Stone products should have excess mortar removed from their faces by brushing as they are placed within the wall at the point of tooling. Clean Building Stone in accordance with the cleaning guidelines in ARRISCRAFT•CARE. Various masonry detergents and cleaning systems can change the colour of masonry products. Acid-based cleaning agents will darken the colour of the masonry 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 – Cleaning Masonry for further information.

Arriscraft does not recommend the application of water repellent or graffiti-proofing sealers to its masonry 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 colour and finish, coursing charts and copies of test reports upon request.

