

Installation and Maintenance Guide

A. Substrates

Fabricated Cast ArcusStone shapes are an architectural façade, designed to enhance new construction and the retrofit/renovation of older existing buildings. The following is a list of recommended substrates for application of ArcusStone shapes. If a substrate is not listed, contact Circle Supply or ArcusStone for recommendations.



Exterior Grade Gypsum/Dens-Glass/Durock Sheathing
(with 60-minute vapor barrier and galvanized metal lath)



Oriented Strand Board (OSB)
(with 60-minute vapor barrier and 2.5 galvanized metal lath)



Stucco



Brick

Retrofit/Renovation

Fabricated Cast ArcusStone Shapes are ideal for renovation of existing brick buildings with the enhanced, new look of limestone. These lightweight limestone parts use the ArcusStone limestone product and the technology in (EPS – Expanded Polystyrene) shapes, to cast a thermal component that can be used separately to restore existing buildings with a new look. These decorative and functional shapes provide attractive new textures and finish colors, which augment or change an existing surface.

B. Adhesives

Fabricated Cast ArcusStone is a lightweight limestone part that has encapsulated an expanded polystyrene board (EPS) foam core shape, to be applied over an approved substrate. The use of any adhesive designed to be used with (EPS) Foam, provided that the EIFS manufacturer's recommendations are followed.

Application Procedure

Job Conditions – Air and surface temperatures for application of EIFS adhesive mixture must be 4°C (40°F) or higher and must remain so for a minimum of 24 hours.

Temporary Protection – Shall be provided at all times until adhesive and permanent flashings, sealants, etc. are completed to protect the wall from weather and other damage.

Substrate Preparation - Application is to recommended substrates. Typically, these include exterior grade gypsum sheathing on either steel or wood studs, clean unpainted concrete, concrete block, brick and stucco. Masonry, concrete and brick substrates must be flat within 6.4 mm (1/4") in any 1.2 m (4 ft) radius.

Surface Preparation - Surfaces must not be below 4 °C (40 °F) or painted and must be clean, dry, structurally sound and free of efflorescence, grease, oil, form release agents and curing compounds.

Mixing – follow the adhesive manufactures recommendations.

Application - Using a stainless steel trowel, install a ribbon of Adhesive mixture, 51 mm (2") wide by 10 mm (3/4") thick around the entire perimeter of the shape. Place eight dabs of Adhesive mixture 10 mm (3/4") thick by 102 mm (4") in diameter approximately 204 mm (8") on center to the interior area.

Alternatively, a notch trowel may be used to install a continuous coat of the Adhesive mixture on the entire back of the shape. The beads shall stand out 10 mm (3/4") from the surface of the shape. The 51 mm (2") wide by 10 mm (3/4") thick ribbon must be installed around the entire perimeter of the shape. CAUTION: Do not install Adhesive on the substrate using the notch trowel.

Immediately place the shape on the substrate and slide into position. Do not allow the Adhesive mixture to form a skin before positioning the insulation board on the substrate.

Drying Time - When bonding shape to an approved substrate, a period of 24 hours must elapse to allow the Adhesive to form a positive bond. The shape should not be worked on while the Adhesive is curing. Drying of the Adhesive is dependent on the air temperature and relative humidity. Under average drying conditions [21 °C (70 °F), 55% R.H.] protect work from rain for at least 24 hours.

Clean Up- Clean tools with water before Adhesive mixture has set. Or as set out by manufacture details.

¾ Notch Trowel



Notch Adhesive



C. Joints/Sealants

The sizing of expansion joints and selection of sealants for use in mortar joint utilizing Fabricated Cast ArcusStone shapes is the responsibility of the project architect and/or engineer. ArcusStone details addressing joints represent typical and/or general conditions and are presented in good faith by ArcusStone Products and Circle Supply assume no responsibility for joint design or selection of sealant.



Weatherall 1010 Chinking is a flexible, mortar-textured sealant, which provides a mortar joint appearance. Formulated from a thoroughly tested blend of latex acrylic resins chosen for superior weathering, adhesion, and flexing characteristics. Weatherall 1010 replaces mortar based chinking, mastics, and glossy caulks. Weatherall 1010 Chinking is available in a wide range of colors to either imitate the traditional look of mortar chinking or to blend with the tones of stone. Weatherall 1010 Chinking makes an excellent restorative coating over previously applied mortar chinking, mastics, or caulks. Weatherall 1010 Chinking is also the easiest chinking to apply for the do-it-yourself applications.

Stays Flexible

Provides a resilient, mortar-textured finish that remains flexible and expands and contracts with normal movement.

Superior Adhesion

Adheres tightly to surface without pulling away or tearing.

Seals Tightly

Prevents air and water intrusion.

Exceptional Durability

Withstands weather and temperature extremes and forms a tough protective surface.

Excellent Color Retention

UV absorbers and stabilizers filter the harmful rays of the sun. This protects the surface and colors do not fade.

Quick Drying

Cures more quickly than other elastic chinking; thus it is not prone to bubbling, attracting dirt and dust nor is it easily damaged.

Tools Firmly

Tools firmly, leaving clean, crisp edges. No excessive stickiness or slumping.

Non-Toxic

Safe for both interior and exterior use and has no odor when cured.

Warranty

Carries a 10-year warranty

Installation

1. Use skilled mechanics for installation of sealant system.
2. Follow sealant manufacturer's installation instructions.
3. Use fresh sealant materials that have arrived at the job site in their original unopened containers.
4. Inspect joint for proper design in accordance with contract documents, ArcusStone Products' published details, and sealant manufacturer's recommendations, regarding width, depth, location, substrate, primer, etc. Report discrepancies to architect and correct deficiencies prior to installation of sealant system.
5. Make sure all joints are clean and free of all foreign matter such as moisture, frost, dust, sealers, release agents, paints, etc. before installation of sealant system.
6. Install sealant system only when climate conditions (temperature, humidity, etc.) meet sealant manufacturer's recommendations.
7. Protect adjacent materials, including shape, from damage during installation of sealant system. Mask adjacent areas as required.
8. Allow shape adhesive to cure prior to sealant application.
9. Install backer rod as specified.
10. Mix sealant per manufacturer's instructions.
11. Apply sealant with gun or knife as appropriate, using proper nozzle and technique. Sealant should completely fill joint cavity to backer material and be in intimate contact with substrate.
12. Tool surface of bead after sealant application, as to leave a neat-appearing, smooth, wrinkle-and-sag-free surface without pockets or imbedded impurities, smears or width variations and in total contact with joint sides.
13. Remove sealant from all soiled surfaces.
14. Protect sealant from damage during curing.
15. Use closed cell material for back-up rods.

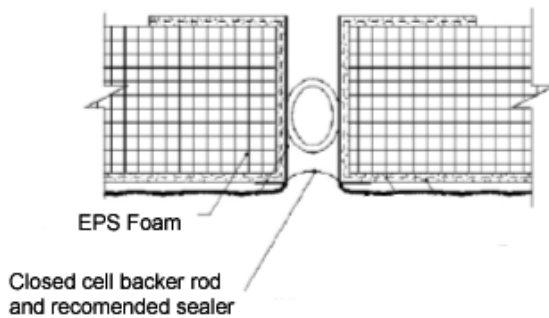
Apply Closed Cell
Backer Rod



Sealant Gun



Sealant Knife



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D. Sealers

Fabricated Cast ArcusStone shapes should be sealed to aid protection from UV light, graffiti, caustic chemicals, or staining from other sources such as tree sap, soot, bird, or animal droppings. The following sealers are recommended.

1. Hydrozo ENVIROSEAL 20 & ENVIROSEAL 40 (Manufactured by ChemRex) – ChemRex @ (800) 327-1570 or www.chemrex.com.
2. STANDOFF SLX100 & Natural Stone Treatment WB (Manufactured by ProSoCo, Inc.) – ProSoCo @ (800) 255-4255 or www.prosoco.com.
3. CLEAR SEAL (Manufactured by Increte Systems) – Increte Systems @ (800) 752-4626 or www.increte.com.
4. QC CEMSEAL & QC CEMGUARD (Manufactured by QC Construction Products) – QC Construction Products @ (800) 453-8213 or www.qcconprod.com.
5. WATER SEALANT (Manufactured by PPK Professional Products of Kansas) – PPK Professional Products @ (800) 676-7346 or www.watersealant.com.

6. Admix C1000/C2000 (Manufactured by Xypex Chemical Corporation) – Xypex @ (800) 961-4477 or www.xypex.com.

Sealer Application Checklist

ArcusStone offers this general checklist for consideration when sealing ArcusStone Plaster and ArcusStone Stone with a penetrating sealer. *Please note that the ArcusStone finish, in all cases, should be cured a minimum of 48 hours prior to any sealer application. Always follow the sealer manufacturer's instructions for cure times and methods of application.*

Surface Conditions

Surface – The surface should be free of loose debris, dirt, grease, or any substance that could interfere with the bond. Any repairs should be done at this time.

Moisture – A dry surface is preferred. A damp surface may be acceptable for some penetrating type sealers, but not wet or saturated.

Preparation

Weather – The temperature should be above 40 degrees Fahrenheit and no precipitation in the forecast for the immediate 24 hours. Refer to sealer manufacturer for additional requirements. If spraying, avoid application in windy conditions. Do not spray on a wall that is “hot” or in direct sunlight. If spray contacts a hot wall surface it will not penetrate properly and a milky appearance may result. Early morning application is preferred.

Equipment – Equipment should be clean and in good working order. Follow manufacturer's recommended application method for brush, spray, sponge, or roller application.

Plants/Trees – Vegetation in close proximity to the work should be protected with coverings or alternately, rinsed with clear water immediately prior to, and after sealer application. Caution: if covering plants with plastic or other “non-breathable” coverings, damage could result from extreme heat if plants are left too long under cover. Remove coverings as soon as possible after spraying.

Windows – Protect with plastic sheeting or clean over-spray immediately after application. Use glass cleaner before over-spray dries. Follow manufacturer's guidelines on avoiding application to particular surfaces or other coatings, e.g. canvas, wood, paint, etc.

Application

Safety – Wear disposable latex or rubber gloves, safety goggles, mist mask, and protective clothing.

Application – If spraying, use low pressure (10-50 psi), high volume sprayer such as a Hudson sprayer. Start at the top and work down. Use horizontal spray strokes and wet the surface with the product, but AVOID RUNDOWNS. A light application is

preferable. Adjust spray tip and pressure to eliminate bounce-back or excessive misting of the product. Try to keep a wet edge to a natural stop or break in the wall surface such as a corner. Excessive runs or laps may cause change in appearance.

Disclaimer

Information contained in this specification conforms to standard detail and product recommendations for the installation of the Fabricated Cast ArcusStone shapes as of the date of publication this document and is presented in good faith. ArcusStone Products and Circle Supply, assume no liability, expressed or implied, as to the architecture, engineering or workmanship of any project.