SECTION 9300
ArcusStone Coat Tile over Concrete Slab

9300.10 GENERAL

9300.11 Description and Scope

1. Provide all labor, material and equipment necessary to install the field applied ArcusStone Coat over concrete slab.

9300.12 Design and Detail

1. Before applying the Stone Mix, you should have a concept rendering and or a grout line diagram. Slight changes in line patterns can be made at the time of application, but major design decisions should be made before beginning. A clear understanding of grout line style and width is also important.
2. Check surface for level. If substantial undulations are noted, more mix can be added to compensate; however, adding more material will decrease the amount of coverage per mix and increase the material cost.
3. Protect surrounding surfaces not receiving ArcusStone Coat or ArcusStone Plaster with tape and plastic.
4. Important! Prior to the installation of the ArcusStone Coat finish, any surface cracks in the substrate should be noted and a determination made that the condition(s) causing the cracks have been rectified or no longer exist. Cracks in the slab will generally transfer through the surface coating; therefore, all cracks should be treated with an appropriate crack repair compound appropriate for the installation, with two coats of a re-emulsifying bonding agent (e.g. ArcusBond or Weld-Crete) applied over the repaired areas. The use of fiberglass mesh tape or other anti-fracture or crack suppression membrane systems to bridge cracks in the slab is strongly recommended.
5. Clean surface of dust and debris.
6. The locations of existing control joints should be marked so that the grout lines in the ArcusStone Coat finish can be scribed appropriately. Never apply ArcusStone Coat over expansion joints.
7. If slab has steel trowel finish, scarify or abrade the surface to create an acceptable bond.
8. Apply a re-emulsifying bonding agent (e.g. ArcusBond or Weld-Crete) to the slab according to the manufacturers' recommendation.
9.

9300.13 Mixing of ArcusStone Coat Finishes

Mixing is a very important part of the system. Improper mixing may compromise the strength of the material and may result in extensive cracking of the finishes surfaces. The mixing can be accomplished using a heavy-duty drill with mixing rod, or powered drum mixers (a tumble drum mixer is preferred over the stucco paddle mixer because it injects less air into the mix, but both are acceptable).

Important! Store the materials in a cool area and use cool water for mixing. Failure to do so may result in premature curing of the applied mix, resulting in extensive cracking. Also, it is very important to mix the material thoroughly for a

minimum of 3 to 4 minutes and let the material set up for 15 minutes before breaking the set by briefly remixing for 1 to 2 minutes before applying the material. Failure to do so may result in material cracking and lessened strength due to poor polymer emulsion from lack of set time.

Bucket Method:

You will need to have a number of clean 5 or 6 gallon plastic buckets, a heavy duty ½" drill, and an appropriate mixing rod on hand for this procedure.

1. Blend pigment with water or ad-mix solution – Pour 14 cups (3-1/2 quarts) of clean, potable water or ad-mix solution into a bucket; open and discard the pigment outer protective bag, removing the inner soluble bag of pigment. Drop the bag into the water, letting the bag become completely wet. Mix the solution with a mixing rod or paint paddle to completely disperse the pigment in the water. One pigment bag per 50 lbs of material is required for the standard colors.
2. Mix dry ArcusStone material with water – Slowly pour the Stone or Plaster material into the water while mixing with a mixing rod, making sure to completely and thoroughly blend the dry material without lumping. If adding micro-fibers, blend them in gradually at this time, continuing to mix for 1-2 minutes after all materials are wet. Add small amounts of water as needed while mixing to achieve a working consistency.
3. Allow Material to Set – After finishing Step 2, let the material set up for a minimum of 10-15 minutes, or as long as necessary until the exposed material is firm. Break the set by remixing the material for 1 to 2 minutes. It is now ready to be applied.

Mixer:

For one-bag mixing,

4. Add 13 cups of clean, potable water to the mixer (no hot water).
5. Add (1) soluble pigment bag and let dissolve completely before mixing. Start mixer.

9300.14 ArcusStone Coat and Plaster finishing techniques

ArcusStone Coat finishing techniques

The unique properties of the ArcusStone Coat material allow you to produce various finishes. The following is a summary of guidelines to be used in achieving those finishes. By varying the finishing methods, many different custom styles can be created.

General Principles:

The main objective of the finishing process is to replicate the texture and patina of quarried stone. The chips and flaws that occur in natural stone are what give stone its individual character. When the elements wear on a stone surface, the rate of erosion varies. If the density of a stone varies from one place to another, it will erode differently, thus creating a non-uniform surface. The same principals should be applied when creating ArcusStone Coat textures. It's important to remember that if every stone looks exactly alike, the result will not have the random characteristics of natural stone. Variations in color and patina should be in a random fashion.

Timing and Finishing Tips:

1. Drying – depending upon ambient conditions such as temperature, sun exposure, wind, and relative humidity, allow ½ to 2 hours at 70° in the shade before scratching. Avoid working in direct sun, if possible, especially on hot, dry days.
2. Scratching – test the material in various places using light finger pressure. If the material gives readily, leaving fingerprints, it is too wet to start scratching. Material should be firm but damp, and should crumble when scratched with strong pressure. If it tears when scratched, it is too wet. If it chatters, it is too dry. Mist any dry areas with water (not to the point of run-down), allowing the water to soak in, an then continue.
3. Stoning – allow to dry ½ to 2 hours as above. Material is ready to be stoned when a very slight paste is created using light to medium pressure with the rubbing stone.
4. Wet Grinding – the material must be slightly drier if you are going to grind it (no paste). Use a flexible, worn (dressed) pad (Makita Type 27 flex wheel, 120 grit, 7"x1/8"x7/8"). Angle slightly, and rotate grinder in circular motion, using light pressure.
5. Dry Grinding – After 2 days, any type of grinder or sander can be used. A random orbital or oscillating type sander works best.
6. Pot Life – In the bucket, the material can be re-mixed for up to 1-1/2 hours, under good conditions. Adding a small amount of water is acceptable, but the material should not be re-tempered more than once.
7. Cure Rate – After the Stone material has been applied, it can be slightly misted with cool water to slow the curing process and allow more time for finishing. After finishing, it is never advised to we the surface as it may cause discoloration.

ArcusStone Coat Finish Selections

1. [ArcusStone] finish materials, including basic finish, accent coloring, grouting, accessory products, and sealers shall be as manufactured or recommended by ARCUSSTONE PRODUCTS, INC.
2. Basic finish shall be a polymer-modified cement plaster with integral color composed of Portland cement, natural minerals, special additivies and proprietary ingredients. It shall be non-combustible, with a minimum compressive strength of 4650 PSI at 3/8" thickness after 28 days.
3. ArcusStone Coat materials, (cementitious), must be used in their pure form without any additional additives, other than color pigments, unless approved by the manufacturer.
4. ArcusStone Coat color and texture shall be selected from Standard ArcusStone color chart. Color-Texture and Coursing patterns shall be indicated on prints.
5. ArcusStone Coat Finish (3/8" Thickness) Textures:
   a. Chateau Polished
   b. Chateau Stone
   c. Dune
   d. Tuscan
   e. Sandstone
   f. Weathered

1. ArcusStone Coat finish color and texture shall be _____ and _____, respectively. Patterns shall be _____ as indicated on prints. Present 8.5"x11" Color/Texture samples for final approval by architect/owner.
2. Sealers with water repelling properties used over ArcusStone Finishes should be used in cold climates and all exterior applications. Refer to CS205 Installation and Maintenance Guide.
3. Protect the ArcusStone finished surfaces for the first 24 hours until the initial curing is complete.

9300.15 Grouting

Grouting is a simple but very important step. If it is done incorrectly it can make a lot of good work look bad. Any one of the many commercially available pre-mixed bags of sanded grout are acceptable for use with ArcusStone Coat. However, the Applicator may choose to mix his own grout. Using ArcusStone Plaster as grout is another acceptable method. Whichever grout is chosen, an acrylic admixture should be used for added strength. If desired, adding aggregate to the pre-mixed grout can give a more rustic texture. Adjust the consistency of the grout mix (looser) to provide adequate flow if adding aggregate. Although one man can properly apply grout, working with a partner is generally the most productive.

1. Mix the grout following manufacturers' recommended procedures. The consistency should be quite loose, so that the grout will squeeze out of the grout bag without stoppage.
2. Fill a grout bag half full with the wet grout. Squeeze the grout into the desired grout lines, either filling them up until they are flush with the stone surface or recessing them to give the stone more depth. (Note: grout lines should be cleaned of any dust or debris before grouting) Do not over fill the grout line; to much grout may press over onto the surface of the stone causing staining of the adjacent stone.
3. Immediately after filling the grout joint, use a grout-pressing trowel to push down the grout.
4. Depending on the ambient temperature, humidity, sun and wind exposure, the grout will be ready to be brushed from 10 to 30 minutes after being applied. When ready to brush, use either the soft or firm bristle brush and brush across the grout line. The finished grout should have a sandy texture with not tool marks.
5. Remove any grout residue left on the stone surface with a damp sponge. Rinse the sponge and wipe the stone. Important! Rinse the sponge after every pass. Not rinsing the sponge each time may leave residue that won't be seen until it is dried onto the adjacent surfaces, causing unwanted staining or discoloration.