

SECTION 09250

ArcusStone Finish over Cement Plaster, Masonry, Brick, and Poured Concrete

1 **9250.10** **GENERAL**

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3 **9250.11** **Description and Scope**

- 4 1. Provide all labor, material and equipment necessary to install the field applied
5 ArcusStone Coat and ArcusStone Plaster over cement plaster, masonry,
6 brick, and poured concrete.
7 2. Description of Application: The Application consists of a vertical or horizontal
8 coating applicaton consisting of a re-emulsifying boding agent, fiberglass
9 mesh tape, brown coat of cement plaster, and and ArcusStone finish.

10 **9250.12** **Design and Detail**

- 11 1. Before applying the Stone Mix, you should have a concept rendering and or a
12 grout line diagram. Slight changes in line patterns can be made at the time of
13 application, but major design decisions should be made before beginning. A
14 clear understanding of grout line style and width is also important.
15 2. Check all surfaces for level, plumb and square. If substantial deviations are
16 noted, more mix can be applied to compensate; however, adding more
17 material will decrease the amount of coverage per mix and increase the
18 material cost.
19 3. Protect surrounding surfaces not receiving ArcusStone Coat or ArcusStone
20 Plaster with tape and plastic.
21 4. Important! Prior to the installation of the ArcusStone Coat finish, any surface
22 cracks in the substrate should be noted and a determination made that the
23 condition(s) causing the cracks have been rectified or no longer exist. Cracks
24 in the substrate will generally transfer through the surface coating; therefore,
25 all cracks should be covered with fiberglass mesh tape over a crack repair
26 compound appropriate for the substrate, with two coats of a re-emulsifying
27 bonding agent (e.g. ArcusBond or Weld-Crete) applied over the mesh tape.
28 5. If application of ArcusStone is over concrete masonry blocks or bricks, or any
29 other substrate that has coursing or grout lines, first apply a re-emulsifying
30 bonder (e.g. Arcusbond or Weld Crete), then a brown coat of portland cement
31 plaster to the substrate. Refer to item #5 for further application instructions.
32 6. Depending on ambient conditions such as temperature, humidity, sun and
33 wind exposure, the area receiving ArcusStone Coat or ArcusStone Plaster
34 should be dampened with water. A hot, dry substrate will act like a sponge
35 and rob the mix of its workability, which in turn promotes premature drying,
36 which leads to shrinkage and cracking. When covering acceptable existing
37 stucco, or surfaces that have been repaired, an ample coat of ArcusBond or
38 Weld-Crete bonder should be applied. Generally, it is necessary to shade the
39 working area to protect it from direct sun exposure.
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41 **9250.13** **Mixing of ArcusStone Coat and ArcusStone Plaster Finishes**

42 Mixing is a very important part of the system. Improper mixing may compromise
43 the strength of the material and may result in extensive cracking of the finishes

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44 surfaces. The mixing can be accomplished using a heavy-duty drill with mixing
45 rod, or powered drum mixers (a tumble drum mixer is preferred over the stucco
46 paddle mixer because it injects less air into the mix, but both are acceptable).
47 Important! Store the materials in a cool area and use cool water for mixing.
48 Failure to do so may result in premature curing of the applied mix, resulting in
49 extensive cracking. Also, it is very important to mix the material thoroughly for a
50 minimum of 3 to 4 minutes and let the material set up for 15 minutes before
51 breaking the set by briefly remixing for 1 to 2 minutes before applying the
52 material. Failure to do so may result in material cracking and lessened strength
53 due to poor polymer emulsion from lack of set time.

Bucket Method:

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

- 57 1. Blend pigment with water or ad-mix solution – Pour 14 cups (3-1/2 quarts) of
58 clean, potable water or ad-mix solution into a bucket; open and discard the
59 pigment outer protective bag, removing the inner soluble bag of pigment.
60 Drop the bag into the water, letting the bag become completely wet. Mix the
61 solution with a mixing rod or paint paddle to completely disperse the pigment
62 in the water. One pigment bag per 50 lbs of material is required for the
63 standard colors.
64
- 65 2. Mix dry ArcusStone material with water – Slowly pour the Stone or Plaster
66 material into the water while mixing with a mixing rod, making sure to
67 completely and thoroughly blend the dry material without lumping. If adding
68 micro-fibers, blend them in gradually at this time, continuing to mix for 1-2
69 minutes after all materials are wet. Add small amounts of water as needed
70 while mixing to achieve a working consistency.
- 71 3. Allow Material to Set – After finishing Step 2, let the material set up for a
72 minimum of 10-15 minutes, or as long as necessary until the exposed
73 material is firm. Break the set by remixing the material for 1 to 2 minutes. It
74 is now ready to be applied.

Mixer:

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76 For one-bag mixing,

- 77 4. Add 13 cups of clean, potable water to the mixer (no hot water).
- 78 5. Add (1) soluble pigment bag and let dissolve completely before mixing. Start
79 mixer.
- 80 6. Allow (1) 50 lb. Bag Stone or Plaster to mixer while machine is mixing.
- 81 7. Allow to mix for 3-5 minutes, adding small amounts of water as necessary
82 until the mix reaches a consistency where firm peaks are formed. If adding
83 micro-fibers, gradually blend until all materials are wet, then continue to mix
84 for an additional 1-2 minutes to disburse the fibers.
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86 8. Pour mix into trough or buckets and allow to set for approximately 10-15
87 minutes.

88 9. Break the set by remixing with a drill and mixing rod for 1 to 2 minutes. Mix is
89 now ready to be applied.

90 **9250.14 ArcusStone Coat and Plaster finishing techniques**

91 **ArcusStone Coat finishing techniques**

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

98 The unique properties of the ArcusStone Plaster allow the applicator to produce
99 a variety of finishes. The following guidelines are offered to create three distinct
100 finishes. By implementing various techniques, many custom styles can be
101 created. The main objective of the plaster finishing process is to replicate the
102 look of weathered European or Tuscan plaster. The exposed aggregates and
103 blemishes add to the authentic look of ArcusStone Plaster. As plaster erodes,
104 both the color and texture are affected. ArcusStone Plaster can make new
105 construction appear antiqued, with a patina acquired over time.
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107 **General Principles:**

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

- 119 1. Drying – depending upon ambient conditions such as temperature, sun
120 exposure, wind, and relative humidity, allow ½ to 2 hours at 70° in the shade
121 before scratching. Avoid working in direct sun, if possible, especially on hot,
122 dry days.
- 123 2. Scratching – test the material in various places using light finger pressure. If
124 the material gives readily, leaving fingerprints, it is too wet to start scratching.
125 Material should be firm but damp, and should crumble when scratched with
126 strong pressure. If it tears when scratched, it is too wet. If it chatters, it is
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- 129 too dry. Mist any dry areas with water (not to the point of run-down),
130 allowing the water to soak in, and then continue.
- 131 3. Stoning – allow to dry ½ to 2 hours as above. Material is ready to be stoned
132 when a very slight paste is created using light to medium pressure with the
133 rubbing stone.
- 134 4. Wet Grinding – the material must be slightly drier if you are going to grind it
135 (no paste). Use a flexible, worn (dressed) pad (Makita Type 27 flex wheel,
136 120 grit, 7"x1/8"x7/8"). Angle slightly, and rotate grinder in circular motion,
137 using light pressure.
- 138 5. Dry Grinding – After 2 days, any type of grinder or sander can be used. A
139 random orbital or oscillating type sander works best.
- 140 6. Pot Life – In the bucket, the material can be re-mixed for up to 1-1/2 hours,
141 under good conditions. Adding a small amount of water is acceptable, but
142 the material should not be re-tempered more than once.
- 143 7. Cure Rate – After the Stone material has been applied, it can be slightly
144 misted with cool water to slow the curing process and allow more time for
145 finishing. After finishing, it is never advised to wet the surface as it may
146 cause discoloration.

ArcusStone Coat and Plaster Finish Selections

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- 150 1. [ArcusStone Coat] [and] [ArcusStone Plaster] finish materials, including
151 basic finish, accent coloring, grouting, accessory products, and sealers
152 shall be as manufactured or recommended by ARCUSSTONE
153 PRODUCTS, INC.
- 154 2. Basic finish shall be a polymer-modified cement plaster with integral color
155 composed of Portland cement, natural minerals, special additives and
156 proprietary ingredients. It shall be non-combustible, with a minimum
157 compressive strength of 4650 PSI at 3/8" thickness after 28 days.
- 158 3. ArcusStone Coat and ArcusStone Plaster materials, (cementitious), must
159 be used in their pure form without any additional additives, other than
160 color pigments, unless approved by the manufacturer.
- 161 4. ArcusStone Coat color and texture shall be selected from Standard
162 ArcusStone color chart. Color-Texture and Coursing patterns shall be
163 indicated on prints.
- 164 5. ArcusStone Coat Finish (3/8" Thickness) Textures:
165 a. Chateau Polished
166 b. Chateau Stone
167 c. Dune
168 d. Tuscan
169 e. Sandstone
170 f. Weathered
- 171 1. ArcusStone Plaster Finish (3/16" Thickness) Textures

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- a. Sanded
 - b. Dune
 - c. Tuscan
 - d. Skip Trowel
1. ArcusStone Plaster 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. Grouts used in [ArcusStone] finish [es] shall be Weatherall 1010 Chinking® grout with integral color _____, or approved equal. Refer to CS205 Installation and Maintenance Guide.
 3. 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.
 4. Protect the ArcusStone finished surfaces for the first 24 hours until the initial curing is complete.