

STONECRETE Application Method

Preparation

1. Surface preparation

A good quality roughened wall plaster/render made using FF Ready mix plaster or equivalent, with a combed finish, would make an ideal base for the FF Stonecrete.

In case the Stonecrete is to be applied on a form finished concrete wall, an application of FreeForm Primer RushCoat is recommended for better adhesion.

The concrete base or other wall bases must be clean, free of dust and grease. The base must be consistent, without loose particles and disaggregation. The base must be visually dry. Cracks in the base should be repaired. Weak bases, which cannot sustain the contraction of coating must be removed or restored. Use a suitable FreeForm primer, for best adhesion results.

All conduiting work should be completed well in advance and the surface be adequately restored to avoid problems at a later date.

2. Recommended primers

FreeForm Primer RushCoat or other suitable FreeForm Primer, depending on the condition of the substrate on which the material is applied.

3. Installation tools

- Concrete Mixers- Pan or Drum Type - Horizontal or Vertical. Or electrical hand operated drill type mixer. Mixer must be clean and not cause contamination of the mixture.
- Hand Trowels
- Square Trowels
- Plumb Bob,
- Soft bristled washing brushes
- Wheelbarrow or dumper to transport material

Work area preparation/Setting up

1. Mixing

- Add the water/ liquid to the mixer and then the powder if the mixer allows.
- Make a test mix to adjust the mixing rate, and also for "buttering of the mixer". Mixing water - try to work as per recommendations from VYARA/ FREEFORM. Final water rate will need to be adjusted to temperature and work conditions.
- Once mixing rate is established make sure it is always the same.

STONECRETE Application Method

- In case of manual mixing, mix for minimum 2 to 3 minutes. Mix till homogeneous, without lumps and all pigments are well integrated in the mix. Leave for further 2-3 minutes remix before use
- When small mixers are used try to use two mixers to secure an even material flow.
- Only so much quantity of the matrix should be wetted as can be used up within 30 minutes of the wetting. Re-adding of water to the mix on drying must not be done because of the polymeric nature of the mix

2. Recommended application thickness

We recommend applying the Stonecrete material in 8-12 mm thickness in one coat. Aggregate sizes large than 8 mm will require higher application thickness.

3. Laying/Pouring/Installation

The surface must be adequately dampened before the application of the FF Stonecrete. This is necessary so that the moisture from the FF Stonecrete material is not wicked out by the base.

Screed strips are first applied on the surface to ensure even thickness of applied material. Typically aluminium strips of 8 to 10 mm are used for this purpose. These are invariably inserting along the groove lines required on the surface. These should ideally be not apart by more than 5 to 7 metres in any direction.

In the application process, the mixture may either be thrown forcefully on the wall to get it to stick or may be put on a steel trowel and plastered in an upward motion with pressure. Then levelling and finishing is done using levelling tools like musters, spirit level and masonry bob. Complete an entire unbroken panel area in one continuous operation. Level off with an aluminium straight edge. Use the steel trowel and the wood float to bring to a fine surface finish.

If required, "seeding" of additional stone chips is possible.

Avoid the work in rainy weather or when exposed to strong sunlight or high winds.

4. Washing (for exposed aggregate finish only)

The washing of the applied surface is typically begun in about 30-60 minutes after installation. An experienced workman is the best judge to decide when the washing of the surface should begin- as the actual washing time is dependent on ambient weather conditions. The window of time available for the washing process to be carried out is critical, and it must be done right for best results/effects.

STONECRETE Application Method

The brushing is done in 2-3 passes using soft bristled brushes. The brushed surface is then immediately washed off copiously with water to leave no cement residue. The brushing should be done to ensure uniform exposure of aggregates.

The aluminium/ divider strips are then removed, and these read as groves in the Stonecrete. In case some portions are showing less exposure, more intense brushing effort may have to be used. Please refer to available video for demonstration.

Properly clean surfaces that may have been dirtied during the work, as cement is much more difficult to clean after it has hardened.

5. Curing

In normal conditions, the Stonecrete cures in 24 hours. If temperature is lower curing will take longer. The material cures without being covered and the material should not be touched during the curing. Touching the material with a trowel after that it has started to settle may cause separation and cracking in the material.

The surface shall be prevented from being subjected to extreme temperature or drying.

Prevent contaminants on the Stonecrete surface like wood, ferrous, paints or any other organic waste.

Protect the surface from staining, damage, etc. as a result of other agencies working on site. Paints, Gypsum plaster or other such powders or dispersions can be difficult to remove. After initial curing, cover adequately if there is a time gap till the sealing operation.

6. Protection/Sealing

- Clean the surface well. Before coating, washing with mild acid and rewashing may be necessary for thorough cleaning. Any existing dust or dirt or efflorescence may get trapped under the sealer and also enhanced.
- Presence of moisture will also produce undesirable cloudiness or lamination on the surface.
- When the surface is fully dry it is ready to receive sealer, mix the water based FF AcrySeal sealer and apply. Use a low- pressure sprayer to apply the sealer evenly. Alternatively, the sealer can also be applied manually using a sponge. Check with trials in a small patch before applying on the entire surface.
- It is essential that the sealer is not over applied- as it can lead to a plastic feel. Under application can always be covered up with an additional coat, but over application gives big headaches.
- The sealer should be applied and protected from direct rainfall or water source for a period of at least 24 hours after application.

STONECRETE Application Method

7. Cleaning and maintenance

Low pressure water jets are best for cleaning. Clean with PH neutral cleaning agent if required. Never use acids or very strong cleaners. If required, the surface may be resealed periodically with FF AcrySeal premium water based enhancing sealer to keep the surface looking like new.