RENDERCON
ADVANCED CONSTRUCTION PLASTER

RENDERCON® '5S' – *Integral admixture for cement mortar. Imparts Hydrophobicity (water repellence), Self-Curing, Crack Resistance and Shrinkage Control.* Works with high-fine crushed sand also. For *plastering needing water repellence, open-to-air mortar bed, crack repair mortar and repairs.*

Technical Data Sheet

APPLICATIONS

Water repellent Mortar / Screed

Strengthen and impart Hydrophobicity to mortar / screed. For swimming pools, water / septic tanks and rooftop.

AAC Block External Plastering

All mortar in AAC blocks have to be self-cured to avoid cracking. To resist cracking in external plastering, use RenderCon '5S'.

Toilets / Roof Top – Mortar / Screed

In toilets / roof top to stop water ingress into the next levels. Use in tile bed / mortar bed / screed.

Red Brick External Plastering

To resist cracking due to efflorescence on red bricks. 5S is essential at least on external plaster.

External Repair Mortar & Dampness Resistance

- ✓ Repair dampness on internal / external walls by re-plastering
- ✓ Repair External cracks where water repellence is usually desired.

BENEFITS

Hydrophobicity (Water Repellence)

Reduces water absorption of mortar noticeably.

Resists dampness. Controls cracks due to use of AAC block

Curing Eliminator

Save water, electricity and supervision on policing curing.

Eliminate any defects due to delayed curing.

Crack Free Walls and Defect Free Tiles

Uses Latest technology on controlling drying shrinkage.

Resists cracks, spalling in walls and hollowness in tiles.

Use In & Use Not In

Use Crushed Sand preferably to derive best results. Today's River Sand contains clay and affects water repellence of '5S'.

Do NOT use '5S' for plastering ceilings. '5S' does not work on the negative side.

Time Saver

Eliminating curing saves time to expedite next works.

Putty/POP/painting can be done on the 5th day.

Technical Data Sheet

MIX PREPARATION (common for all applications)

2 Component Admixture

RenderCon '5S' sachet contains 2 pouches inside. 1 Liquid and 1 Powder, both shall be used together.

Dry Mixing (Cement + Sand + Powder)

Mix cement and sand as received and sprinkle the Powder from the Pouch (labelled P) over this mixture. Mix it until it is homogenous.

Add Liquid Pack to Mix Water

Pour contents of Liquid pack into the mix water. Rinse the liquid pack well to empty all its constituents. Mix this water with the dry mix prepared as detailed above. Add additional water if required

Mix the wet mortar well in one go

Ensure the whole mortar is mixed in go. All the mortar shall be homogenous in color to ensure that the admixture is dispersed well into the mortar.

Increase mix time with the masons by 5-10 mins every time mix is made.

BENEFITS

Safe for Use

No safety hazard to masons, unlike masonry fibers, which usually pose cut hazard.

Use Local Cement and Crushed Sand

Use OPC / PPC cements of any brand. Use locally abundantly available crushed sand. 150 microns passing up to 40% is allowed.

Dosage

Use 1 Sachet for every bag of cement (50 Kg).

Use a full sachet even if cement quantity is less than 50 Kg.

Mason Friendly

Use 1 Sachet every time a mix is made of 1 bag of cement or less.

The Pot Life of Mortar is maintained for about 4 hrs.

Usually mixed manually or alternately with mixers.

Mix Ratio

1:4

When using '5S' always use 1:4 ratio with Crushed Sand to derive best water repellence.

1:5 and 1:6 will work, but water repellence property reduces.

Policing Required

Supervise the mixing only, at least till first few months. Emphasize importance of mixing with masons to avoid defects.

No supervision required for curing etc.

Technical Data Sheet

APPLICATION (PLASTERING)

No special procedures needed; however here are some tips:

Plastering

AAC blocks crack due to expansion and contraction of gel-pores in bricks. Use '5S' in external plaster of AAC blocks to resist cracking.

Yellowish to white precipitate comes out from Redbricks due to sulphates in it. Use '5S' to resist efflorescence due to red bricks at least on the external side.

Junctions, Electrical Conduits etc.

Use scrimming with mesh (8" preferred) for change in backgrounds (Ex: Beam-column-wall junctions). Use mortar prepared with '5S' for fixing such mesh. Alternate techniques to address this may also be used.

Seal Electrical Conduits, gaps in bricks etc with the same mortar prepared with '5S'.

In both above cases, leave a time interval of 3 days before plastering.

Adjust Suction Before Plastering

Masonry: Use spatter-dash (Cement + water slurry).

Concrete: Hack the surface well. Use spatter-dash or dash dry cement on the concrete surface to improve suction and bonding. Alternately, bonding agents may be used.

DOs & DON'Ts

Consume in Time

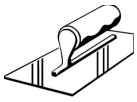
Mix 1 cement Bag mortar once. Many cement bags mixed at once will cause non-uniform mixing of admixture. Consume mixed mortar in 4 hrs.

Retemper by water

Water may be added into the mixed mortar to improve workability.

Do not add too much water for the top layers to improve surface finish. This can affect water repellence.

Sponge / Float / Broom finish



Use a steel float for best results. However, other tools may be used for rough surface.

Apply up to 40mm in Single Coat

For best results, apply all your plaster in single coat. Multiple thin coats will have high shrinkage. Never use any coat less than 10mm thick.

No dry cement spray on surface

Do not spray / add additional cement on to the top surface of the plaster to improve surface finish or make corners / edges sharper.

This causes dusting and weak top surface. Instead little more water can be sponged and finished with steel float.

Technical Data Sheet

FLOOR TILES

Mix 2 bags max in a batch for Tile Bed

Not mix more than 2 bags in a single batch. 1 Sachet per 50Kg cement shall be used.

Mix as many batches as needed side by side. Ensure admixture is well dispersed evenly in each batch.

Work Water Sheen on top of bed

When compacted, the mortar bed has to show up shine (slight water sheen).

Thick Cement Water Slurry

Slurry to pour above the tile bed to stick the tiles shall be thick enough but flowing. Stir it well before drawing for each use. Pour enough slurry on the top of this mortar bed. Strike many lines on this slurry to allow penetration of slurry.

Ensure the top surface is wet enough with many lines. Stick tiles over this slurry.

REPAIRS

Do not follow the pattern of the Crack

Do not chip cracked surface following the pattern of the crack.

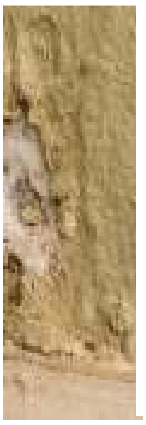
Instead chip-off as a rectangle to fill it better.

Many Cracks in the wall - Replaster

If the surface has crazed heavily or has multiple cracks / defects, it is better to replaster it.

Follow the same procedure for plastering as described in previous section.

Dampness

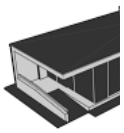


Chip off the paint / putty / POP and defective plaster from the surface.

Apply mortar made of 5S as plaster, as directed in the previous section.

If dampness to address is high, use halogen lights after 3 hrs of application of plaster.

OPEN TO AIR (ROOF TOP) SCREED



Use Mix Proportion of 1:2:3 manually mixed by hand along with RenderCon 5S with a dosage of 1 Sachet for every bag of cement. Keep slump below 100mm. Follow regular procedure of levelling and finishing. Cure the bed for at least 3 days by ponding.

TOILETS – MORTAR BED

Weak mortar fails in the bathrooms etc. causing leakages despite applying elastomeric waterproofing membranes like Brush Bond. Use RenderCon '5S' in the mortar for strengthening and water repellence. Use 1:4 with 1 sachet for every cement bag. Cure for at least 3 days by ponding.