

STONE PLASTER – Installation Guide

1. Install the relevant primers and base coats prior to starting the STONE PLASTER application process. Sanding the last base coat with a 24-grit silicone carbide floor disc.

Note - it is imperative that the last base coat is fully blinded with 0.3-0.6 Quartz sand and not kiln dried paving sand. The larger grain size assists in holding more HYDRO PLASTER TOP COAT (NATURAL), allowing the STONE PLASTER to fully bond.

2. STONE PLASTER is applied into HYDRO PLASTER TOP COAT (NATURAL) with 10% water added per bucket total. This includes any pigment water, meaning that the total water per bucket is 600g including the water used to mix the pigment. Do not exceed this water amount.

The Installation Process

- Mix the HYDRO PLASTER TOP COAT (NATURAL) with the hardener and correct amount of water as listed above. Scrape the sides and bottom of the bucket to ensure full mixing is achieved.
- Apply the HYDRO PLASTER TOP COAT (NATURAL) using a large spatula at grain thickness. The coverage should be in the region of 500g per m². It is important that the material is worked back and forth across the surface, filling the pores of the 0.3-0.6 quartz fully. The correct amount of HYDRO PLASTER TOP COAT (NATURAL) must be applied to the surface. Applying too little will not allow the large and fine stone chippings to stick.
- Whilst the HYDRO PLASTER TOP COAT (NATURAL) is being applied, a second applicator should start the stone application. The first stage is to roll over the freshly applied NATURAL with a black plaster roller / coarse hair roller whilst wearing spiked shoes. The roller removes any trowel lines and 'plucks' up the surface of the NATURAL ready to receive the stone chippings.
- Whilst wearing spiked shoes, begin adding the large stone flakes into the freshly rolled NATURAL. Throw them up into the air to avoid clumping where possible. The amount and distribution of flakes is decided by the applicator during this process.

Heavy Coverage – roughly 36g per m²

NATURAL Coverage – roughly 18g per m²

Light Coverage – roughly 9g per m²

The above amounts are for guidance only and the amount of large stone must be controlled visually on site to match the chosen sample.

- Once the large stones have been applied to the surface, they are compressed into the NATURAL using the black plaster roller / coarse hair roller. It is important to apply pressure to the roller at this point, cross hatching the surface of the large stones.

Note – The large stones are not completely flat, meaning that the rolling of the stones is extremely important to compress and flatten them into the NATURAL sufficiently. If not compressed enough, the stones will ‘pop’ away from the surface once the sanding process is commenced.

- Once the large stones have been rolled in, the fine stone can then be added to complete the process. The fine stone should be added in a methodical manner, ensuring even distribution across the surface. Chucking the fine stone vertically will ensure the particles land consistently without clumping.

Note – The consumption of the fine stone is 300g per m² for full coverage. This is exactly the correct amount, and it is imperative not to run out during the installation. A two-stage approach should be adopted to this stage of the application. Applying an initial layer of fine stone first to ensure coverage, before then covering the entire area fully.

Note – It is important the installation team work together and communicate during the application process. The installer applying the HYDRO PLASTER TOP COAT (NATURAL) must work to the speed of the stone applicator, not allowing themselves to get too far ahead. Getting too far ahead of the stone applicator will mean that the HYDRO PLASTER TOP COAT (NATURAL) starts drying before the stones are added, and they will not stick. It is advisable to cover all windows from direct sunlight, and do not apply if the slab temperature is too hot.

The Sanding Process

- Ensure that the surface has cured sufficiently so that the sanding process can begin. This should be tested by pushing a fingernail into the surface. If you can dig into the stone flakes and make a dent it is not ready for sanding.

Note – The high-water content and increased application thickness can result in extended curing times. It is advisable to allow an extra day curing during cold temperatures, or if the application is finished late in the afternoon.

- The first sanding stage is completed using a 60g silicone carbide floor pad, placed underneath a soft backing pad.

Note – The STONE PLASTER is extremely ‘grippy’ when first starting to sand. Sprinkle a handful of fine stone underneath the sanding disc to help get the sander started / spinning.

- Cross hatch with the 60-grit pad until you start to see the large stones exposing. 1-2 passes should be sufficient to expose the stones. A further pass using 80-grit or 120-grit sandpaper will help to refine the surface, clean the stone, and produce a smooth finish.

Note – The stone flakes will begin to shine / polish, this indicates that the correct amount of sanding has been completed.

Note – 17-inch diamond pads do not work for sanding STONE PLASTER. The diamonds generate too much heat and melt the surface of the stones, producing black marks and swirls.

- The same process should be completed around the edgework using 60g or 80g sanding discs, ensuring the level of stone exposure and smoothness match.
- Once complete, the surface should be hoovered and cleaned down thoroughly with a micro fibre mop.

First Sealer

- STONE PLASTER has a pitted, open texture and requires a suitable ‘pore filler’ to close the texture and ensure the floor surface can be cleaned. In dry applications MONO SMOOTH should be used, and in wet environments PA SEALER & thickening powder should be specified.

MONO SMOOTH = 1 or 2 coats @ 100g per m² per coat

PA SEALER & Thickening powder = 1x coat @ 200g per m²

Sanding the MONO SMOOTH

- Once the MONO SMOOTH has dried it should be sanded sufficiently to remove the excess MONO SMOOTH from the surface of the stones, only leaving it within the pores / pits. This reduces the ‘plastic look’ and creates a smooth finish. The

soft, rubber nature of MONO SMOOTH makes it difficult to sand, and the following sanding discs should be used:



- Using 4x 150mm sanding discs attached to a foam buffing / backing pad helps to reduce the overall contact area. In doing so it also reduces the amount of heat generated whilst sanding, meaning that the MONO SMOOTH has less tendency to melt and smear onto the bottom of the sanding disc.

Note - The surface of the MONO SMOOTH can be very grippy when first starting to sand and the machine may not spin. Spinning the pad and discs by hand will help to produce a small amount of dust and take the sharpness away. The machine should then spin once this has been done.

Note - Using standard 17inch mesh screens or silicone carbide discs will result in melted MONO SMOOTH smears sticking to the bottom, and after a short period no sanding will take place.

Note – Small lumps of melted / sanded MONO SMOOTH will form over the surface of the floor whilst sanding and this is normal. They will also attach to the bottom of the foam pad which does not cause an issue. Regular micro fibre mopping of the surface will reduce this and help to prevent melted MONO SMOOTH sticking to the sanding discs. It is advisable to check the condition of the discs every 10m².

- Hoover and Micro-fibre once the sanding is complete.

Second Sealer

- Apply 1 or 2 coats of the desired polyurethane seal coat:

DUO SEALER
DUO SEALER (GLOSS)
DUO PLUS

Diamond polished finish can be achieved by polishing the DUO PLUS once it has dried overnight.

- The finished floor surface should be covered with breathable cardboard roll (RAM Board) for a minimum of 14 days. Masking tape should not be applied to the floor surface.

Useful Hints and Tips

1. Applying the correct amount of HYDRO PLASTER TOP COAT (NATURAL) is paramount. Applying too thinly will compromise the application. Using a stiff trowel and not a flexible trowel will assist with this.
2. The 0.3 – 0.6 sand blinding is extremely important. We tested kiln dried paving sand (0.1 – 0.3) and it did not hold enough HYDRO PLASTER TOP COAT (NATURAL) within the surface texture.
3. Working as a team during the application process is critical. The large and fine stones must be added into the HYDRO PLASTER TOP COAT (NATURAL) whilst the surface is still wet.
4. Do not try to start the sanding process if the surface is still soft.
5. Do not deviate from the process listed above. It took months of testing to fine tune the application process, and we have found that it only takes a small change to result in an unsuccessful application.