BUILDING TRUST

FACADE MORTARS GUIDELINES

Shade Variations

Shade variations can occur on large projects where sections are pointed at different time periods and in different ambient conditions. This is to be expected as mortar colour lightens relative to prolonged curing time and exposure to light, thus the earliest pointed areas appear lighter.

The curing process is also affected by substrate/brick-slip moisture content at the time of the mortar installation. For instance, if the slips are installed and then exposed to inclement weather conditions for an extended period before pointing begins, the colour-lightening process is likely to take longer, compared with elevations that have remained mostly dry.

Photo 1 below is an example of areas pointed at different times, the upper section being pointed first, then the middle section and finally the lower section.

Photo 1

Areas of inconsistent finishing can also cause significant shade variation as demonstrated in the 'Scraped vs Tooled Finish' image shown in **Photo 2**.

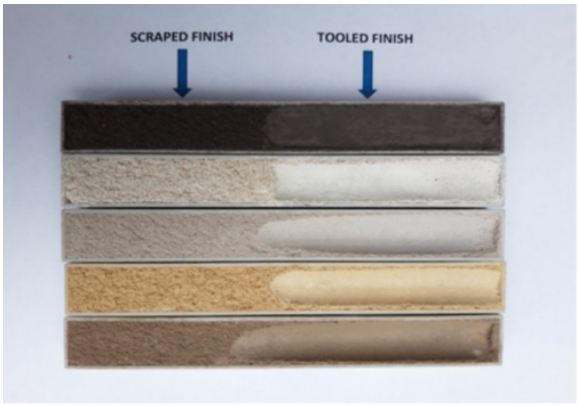

Photo 2

Another main cause of shade variation is the time at which the mortar is tooled up i.e., the mortar must reach its initial cure and be dry to the touch before jointing commences.

In **Photo 3**, the darker upper section was allowed to complete its initial curing properly before jointing began, and the surface mortar has been cleanly cut away with no visible tooling drag marks.

Photo 3

In **Photo 3**, the lower pointed section was jointed before the mortar had reached its initial cure, as shown by the tooling drag marks visible on the surface of the joint. This has left a residue of mortar pigment and water on the surface, causing the colour to appear significantly lighter.

It is important to note that, because the lighter-coloured mortar has a diluted lime content on its surface, the residue left on the joint is likely to weather off over time when exposed to the elements, gradually revealing the darker main body of mortar beneath.

Supporting Information and Best Practices

Mortar is composed of natural materials, such as sand, which can vary slightly in colour. This means minor batch-to-batch shade differences are possible. To minimise this risk and achieve consistent visual results across elevations:

1. **Use a Single Batch Where Possible**
   Plan work so that the same mortar batch is applied across entire elevations.

2. **Maintain Consistent Mixing Ratios**
   Ensure water-to-mortar ratios remain uniform and clean water is used throughout the project. Variations in water content can significantly affect colour and curing behaviour.

3. **Sample Panels**
   Prepare a test panel using the actual materials and methods intended for the project. This provides a benchmark for colour and finish consistency.

Please refer to the Sika Technical Data Sheet for mixing instructions and general data. As with any mortar, its use is dependent on weather conditions including temperature, wind, humidity and sunshine. The mortar should be installed at 5°C and rising for a minimum of 48 hours. If temperatures fall below 5°C while the mortar is curing, these areas should be protected during the cure time. Do not install the mortar while it is raining.

Care should be taken at all steps to ensure proper mixing, installation and tooling. The mortar is a moisture cure and is dependent on the extraction of water from the mix. There is no ‘initial set’ as with cement-based mortars, therefore the curing can be affected by the weather as noted above.

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