

NCC's Concrete Repair Site –

www.ConcreteRepairSite.co.uk

IV). Levelling / Fairing Mortars for Concrete Repairs

Surface Levelling Mortars (also known as Concrete Fairing Mortars) are used after localised concrete patch repairs have been carried out, to fill and level any additional minor surface defects, such as blowholes in the concrete surface, which would otherwise allow the future ingress of water and aggressive liquids or gases into the concrete.

Surface Levelling Mortars are also used to effectively add additional concrete cover, but with only a thin layer of the material that is equivalent to a much greater thickness of normal concrete i.e. they have much greater resistance to atmospheric CO₂ and water ingress, which means a much greater resistance to carbonation and provides additional protection to the embedded steel reinforcement. Surface Levelling Mortars are also used to restore the original line, level, profile and texture to the concrete surface, plus they also provides an ideal substrate when an additional protective coating needs to be applied i.e. the surface is made uniform and any voids such as blowholes, which would allow penetration through a surface coating, are affectively pre-sealed.

Surface levelling mortars are therefore usually specified in one of two ways, either: to 'fill and level any surface defects and blow holes' i.e. there is no defined thickness or 'to be applied at a nominal thickness of Xmm (usually 2mm) to provide the defined amount of additional concrete cover required. The choice of specification and levelling mortar selection is therefore dependant on the most important reasons and the requirement for their use on your specific repair project. NCC Concrete Repair Site can always assist you to make the right decision for your projects.

This means that the specification and required thickness of the surface levelling mortar can be a critical part of a technically correct concrete repair and protection solution. It can also have a significant cost, so if this aspect is carried out unnecessarily or incorrectly, it can add considerable additional cost. However if it is overlooked or omitted from the specification for the works, then the result is possibly much worse, with inadequate protection provided meaning that there will be future damage and more repair works will be required.

In the European Standard EN1504: Part 9 Principle 5 (Physical Resistance), Method 5.1 Overlays or Coatings; Principle 6 (Chemical Resistance) Method 6.1 Overlays or Coatings; and Principle 7 (Preserving or Restoring Passivity) Method 7.1 Increasing Cover with Additional Cementitious Mortar – All can apply as appropriate for the specific requirements of the project.

NCC are experts in this surface repair and levelling process and can advise you to ensure the most cost effective and correct specification and application of the most appropriate type and thickness of material to meet your project requirements. Please call any of our offices for expert assistance.