

# NUPATCH H.B.MORTAR

## Fast Setting High Build Cementitious Mortar

### Description

A prepacked, rapid setting, fibre reinforced, lightweight concrete repair material designed to enable repairs to be carried out on inverted and vertical surfaces. The product is characterised by its excellent bond strength, low slump, water resistance and excellent finishing properties which make it ideally suitable for the rapid repair of concrete damaged by reinforcement corrosion.

### Advantages

- Up to 50mm can be applied in one layer.
- Rapid setting enabling successive layers to be built up with minimum delay.
- Contains no chlorides.
- Simple to use with excellent finish characteristics.
- Water resistant properties will protect rebars from corrosion.
- Package contains everything required including gauging liquid.

### Applications

- Repairs to concrete damaged by reinforcement corrosion.
- Repairs to precast concrete units.
- Restoration of decorative mouldings etc.
- Repair of concrete soffits.
- As a lightweight water resistant render.
- Repair of concrete in tidal situations.

### Technical Information

Typical compressive strengths in N/mm<sup>2</sup> using 70.7mm cubes tested in accordance with BS1881 Part 4

4 hrs	24 hrs	7 days	28 days
10 N/mm <sup>2</sup>	17 N/mm <sup>2</sup>	21 N/mm <sup>2</sup>	22 N/mm <sup>2</sup>

Usable life at 20°C:	25 minutes
Maximum water/cement ratio:	0.47
Typical density:	1250 kg/m <sup>3</sup>
Typical Yield:	800 cc/kg

Water Permeability	ml/m <sup>2</sup> /sec
ISAT 10 min 0.03	Typical concrete 0.5
2 hrs 0.01	Typical concrete 0.15

### Surface Preparation

The substrate must be clean and sound, hence all grease, oil, dust and laitance must be removed. Oil and grease should be removed by using Desolve and laitance should be removed by scarifying or acid etching with Chemclean. Once the reaction has ceased, the surface must be washed with water. The edges of the repair should be recessed to at least 10mm, although feather edging is possible. However, this may reduce the performance of the repair. Where spalling is caused by reinforcement corrosion, all steel must be exposed and cleaned to remove all loose scale and rust, preferably by grit blasting.

### **Priming**

Saturate the substrate and ensure all free standing water has been removed then prime with Nupatch Primer. Mix the primer in the proportions supplied by adding the entire contents of the powder to the liquid, mix into a slurry. Apply by brushing thoroughly into the prepared substrate, including any exposed reinforcement. The Nupatch H.B. Mortar must be applied to the primed repair while the primer is still tacky.

### **Mixing**

Place approximately half of the gauging liquid into the mixer or mixing vessel and add the entire bag of powder. Mix slowly then add the remainder of the gauging liquid to give the required consistency. It is permissible to omit a small amount of the gauging liquid if a stiffer mix is required. Smaller quantities of material may be mixed by splitting the pack provided care is taken to ensure a consistent product is obtained.

### **Application Instructions**

Apply the mixed Nupatch H.B. Mortar to the substrate previously primed with the Nupatch Primer while the primer is still tacky. When filling deep cavities it is preferable to fill in several layers, "scratching" between layers the finishing layer should be applied at an even thickness. Subsequent layers can be built up after approximately 45 minutes. Should over 12 hours elapse then the surface must be re-primed.

### **Curing**

Normal curing procedures should be adhered to and precautions taken to avoid frost attack.

### **Overcoating**

After a suitable curing period, the Nupatch H.B. Mortar may be overcoated with a suitable decorative finish.

### **Packaging**

Nupatch H.B. Mortar is supplied in 12.0 kg packs (Yield 9.6 litres approximately).

Nupatch Primer is supplied in 3.8 kg packs (Coverage 2.5 - 3.5 m<sup>2</sup> per pack).

### **Storage**

Nupatch H.B. Mortar has a shelf life of 12 months when stored unopened at moderate temperatures. Protect from frost.

### **Health & Safety**

Nupatch H.B. Mortar does not present any undue hazard and is non-toxic, however, as it is alkaline, gloves and goggles should be worn and the material should be washed from the skin and eyes before it dries with clean water.

Protect from frost.

### **Limitations**

Application should not be carried out when the temperature is below 0°C.

### **Technical Support**

Through our technical department and laboratories we can offer a comprehensive service to specifiers and contractors.

Technical representatives are available throughout the UK to provide further information and arrange demonstrations.



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