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TEKNOCEM HB30

HIGH PERFORMANCE R2 LIGHTWEIGHT MORTAR

DESCRIPTION

TEKNOCEM HB30 is a lightweight, non-shrink, cementitious mortar which combines the use of hybrid polymers, with specialist cement and micro-fibre technology to produce an extremely lightweight, low density mortar for the repair and profiling of concrete in both vertical and overhead applications. Its thixotropic nature enables ease of application particularly where high-build repairs are to be carried out.

USES

TEKNOCEM HB30 is used for the non-structural repair and re-profiling of concrete and masonry, including piers, columns, lintels, soffits, cills and corbels. The mortar conforms to Class R2 in accordance with EN1504-3.

ADVANTAGES

- Good compressive strength
- Excellent adhesive bond to substrate
- Excellent non-slump properties
- Very high build can be achieved in one application
- Ease of application

Property	Value
Colour	Cement Grey
Pot Life @20°C	1 hour @ 20°C
Wet Density	1247 kg/m³
Flexural Strength	5 MPa
Compressive Strength	1 day @ 20°C: 12MPa 7 days @ 20°C: 24MPa 28 days @ 20°C: 30MPa
Youngs Modulus of Elasticity BS 1881-121	11.35 kN/mm²
Application Thickness	10 - 100 mm
Temperature Range	During application: 5°C to +30°C
Chloride Ion Content	< 0.05%
Capillary Absorption	0.081 kg/M^{-2}/hr^{-o2}

PROCEDURE

Surface Preparation: The perimeter of the repair should be saw cut to a depth of 10mm and all loose and damaged concrete should be carefully removed back to sound substrate. Any steel reinforcement within the repair area should be fully exposed around the full circumference of the bar. Exposed steel should be cleaned back to clean bright steel by means of grinding or grit blasting. Any surface contaminants should be removed by suitable means to ensure a good quality clean substrate that has a strength in excess of 20MPa.

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Priming: Typically, substrates do not require the use of a separate substrate primer, the substrate should just be fully saturated with water, taking special care to ensure no standing water is present before application of the mortar. Particularly porous substrates may require the use of Teknoprime 842. Exposed steel reinforcement should be primed using Teknoprime 841.

Mixing: Teknocem HB30 should be mixed using a forced action paddle mixer or pan mixer. Clean water should be poured into the mixing vessel at a rate of 3 – 3.3 litres depending on the desired consistency. The mortar should be mixed until a uniform homogenous mix is achieved. Once mixing is complete the mortar application should begin immediately to ensure maximum workability of the mortar.

Application: Teknocem HB30 can be trowel applied as a render, once a good contact coat has been applied to the substrate. Obtaining a good contact coat to the sub-base is essential to ensure the cohesion of the mortar once placed, particularly in vertical and overhead situations. If repairs are to be carried out around rebar, then it is important to hand place the mortar to ensure good compaction around the rebar without any voids. The mortar can be placed in thicknesses of up to 100mm, without the need for shuttering, however support may be required depending on the exact profile that is to be achieved. In thicker sections the mortar may be placed in layers, ensuring that each layer is firm and stable, and a keyed surface has been provided before adding the next layer.

Curing: Once placed the Teknocem HB30 should be cured in accordance with standard concreting practices. The surface should be cured using Cureaid AC to prevent shrinkage cracking occurring. The freshly applied mortar should be protected from strong, direct sunlight using suitable sheeting.

PACKAGING & COVERAGE

Pack Size: 18kg Bag
Yield: 16.5 Litres per pack
Coverage: One pack will cover approximately 1.65m² at 10mm thickness

STORAGE & SHELF LIFE

Teknocem HB30 should be stored in unopened bags in dry conditions at temperatures above 8 °C.

HEALTH & SAFETY

See separate material safety datasheet.