

ELMIERE HB XTRA

Shrinkage Compensated, Light Weight, Vertical and Overhead Repair Mortar

Uses

ELMIERE HB XTRA is suitable for the reinstatement of damaged or deteriorated concrete. The material can be used internally or externally by trowelled applications or hand application, with high build characteristics. Typical applications would include, but not be limited to, the following.

- All types of structural repair – vertical and overhead application
- Repair of structural members subjected to repetitive loading including application in trafficked areas.
- Repairs of reinforced or pre-stressed beams or columns
- Repair in industrial area, especially those containing mineral oils, lubricants etc.
- Repairs in marine environments.

Advantages

- Good durability – high strength, abrasion and weather resistance.
- Economical – can be ‘bulked-out’ with graded aggregate saving in material cost.

Description

ELMIERE HB XTRA is supplied as ready to use blend of dry powders, which requires only the

Addition of clean water to produce a consistent, high strength, free flowing, rapid setting repair concrete which self-compacts.

Design Criteria

ELMIERE HB XTRA is formulated for vertical and overhead application. ELMIERE HB XTRA should be applied at thickness in the range of 50 to 100 mm, thicker sections are possible.

Properties

The following typical results were obtained at water to powder ratio of 0.18

Test method	typical result
Compressive strength:	35 N/mm ² @ 7 day 40 N/mm ² @ 28 days
Bond Strength	: >2 N/mm ²
Drying Shrinkage to ASTM C157-93	
7 days	: <300 micro strain
28 days	: <500 micro strain

Instruction for use

Preparation

It is essential that the substrate to be repaired is sound, clean and free of all contamination.

The damaged areas of concrete to be removed must be clearly identified. The perimeter of the area should be saw cut to a depth of 10 mm and the edges cut as neatly

as possible keeping the side square. Feather – edging is not permitted and a minimum thickness of 10 mm must be maintained over the whole area.

The substrate should be prepared to provide a rough surface having at least 5 mm amplitude at 20mm frequency.

Oil and grease deposits should be removed by steam cleaning, detergent scrubbing or degreaser. Temporary form work should be fitted tightly into all existing pavement and floor joints which about the repair zone in order to prevent grout loss during the repair process.

Priming

Prior to placing, the prepared concrete surface should be saturated by flooding with clean water. Immediately prior to the application of ELMIERE HB XTRA, free standing water should be removed leaving the substrate 'saturated surface dry'

Where required higher bond strength, the use of EmO Seal EP, an epoxy based concrete bonding agent is required.

Mixing

ELMIERE HB XTRA should be mixed mechanically with heavy duty slow speed drill. Add 4.5 to 5.5 litres of water into a suitably sized mixing vessel for full bag mixing. It is suggested that the temperature of the water should not exceed 20° C, so that the temperature of the final mixed material is not greater than 30° C. With the mixer in action, add one full bag of ELMIERE HB Xtra and mix for 3- 5 minutes until the mix become fully homogeneous.

Placing

The mixed material should be placed within 10 minutes of mixing in order to gain the full benefit of fluidity. Each repair should be poured or pumped in a single continuous operation. Repairs may be surface finished using a trowel or wood float. ELMIERE HB Xtra can be applied up to 150 mm thickness in a single application. The minimum applied thickness of ELMIERE HB Xtra is 10 mm.

Curing

ELMIERE HB XTRA demands good curing. Particular care is required in hot/windy conditions. Curing is commenced immediately after finishing. The use of EmO Cure RB 90 sprayed on to the surface of the finished mortar in a continuous film, is recommended. Also by covering the work with plastic sheet fixed over hessian and taped at all edges must be used.

Estimating

Supply

ELMIERE HB Xtra : 25 Kg bags

Yield

ELMIERE HB Xtra : 16 litres / BAG

Limitations

ELMIERE HB XTRA should not be used when the temperature is less than 5° C and falling. The product should not be exposed to moving water during application.



Storage

Shelf time

ELMIERE HB XTRA has a shelf life of 12 months if kept in dry store in the original unopened bags or packs. If stored at high temperature and/or high humidity conditions the shelf life may be reduced.

Health and safety

ELMIERE HB XTRA contains cement powders which, when mixed with water or upon becoming damp, releasing alkalis which can be harmful to skin. In case of contact with eyes rinse immediately with plenty of clean water and seek medical advice. If swallowed seek medical advice immediately-do not induce vomiting.

Fire

Non- inflammable.

For further information please contact your local Elmer office.

Additional information

ELMRR manufactures a wide range of products specifically designed for the repair and refurbishment of damaged reinforced concrete. This includes hand-placed and spray grade repair mortars, fluid micro-concretes, chemical resistant epoxy mortars and a comprehensive package of protective coatings. In addition, a wide range of complementary products is available. This includes joint sealants, waterproofing membranes, High quality precision grouts, anchoring and specialised flooring materials.

Product Manufactured By:

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