

BluCem HB30

LIGHT WEIGHT HIGH BUILD CEMENTITIOUS MORTAR



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DESCRIPTION

BluCem HB30 is a one component polymer modified, cementitious powder blend which requires only the addition of water to form a light weight repair mortar.

USES

BluCem HB30 is designed as a high build mortar for the reinstatement of reinforced concrete. BluCem HB30 is lightweight and well suited to overhead and high build applications. BluCem HB30 has been developed to provide high quality architectural repair finishes. All structural repairs should be designed and approved by a Structural Engineer.

ADVANTAGES

- Light weight for overhead applications
- Type C Class, dual shrinkage control grout
- Polymer modified to provide extremely low permeability

CONCRETE PREPARATION

All defective host substrate must be removed prior to application. Defective material includes cracked or structurally weakened surfaces and also chloride contaminated and carbonated concrete. A concrete corrosion expert must be consulted for critical projects or structural applications. Host concrete must be roughened and aggregate exposed to ensure good bond. High pressure water blasting or mechanical chipping of the surface is recommended for this purpose. All surfaces must be free of dust, oils and surface contaminants. This may require steam cleaning or high pressure water blasting if site conditions permit. A perimeter edge of at least 10mm depth must be provided around the area for application. Priming using BluCem API0 is recommended. Priming by saturation of the surface using water prior to application is also acceptable. Priming with epoxy primers or other products which prevent vapour transmission is not recommended. Application of BluCem HB30 must commence within 4 hours of primer application.

STEEL PREPARATION

Following removal of all defective concrete, any partially exposed reinforcing bars shall be fully exposed to a depth of 20mm behind the bar. If the bar has lost more than 20% of its original diameter then it should be replaced and the Structural Engineer must be consulted. Where the original reinforcement is retained it must be cleaned to a standard surface purity of Sa 2.5 for chloride contaminated concrete and Sa 2.0 for carbonated concrete. This is best achieved by wet blasting or abrasive blasting. If chloride contamination is present then high pressure wet blasting is the only acceptable method of cleaning. Priming of reinforcement is generally not required. If the steel will be exposed to the atmosphere for several days after cleaning then an acceptable form of priming would be to mix the repair powder into a slurry using BluCem API0 and apply a cement rich coating to the steel surface.

MIXING AND APPLICATION

Add BluCem HB30 to potable water in a clean vessel using a high shear mechanical mixer for at least three minutes. Do not mix more material than can be placed in 15 minutes. Add enough water to achieve the desired consistency within the water ratio limits specified in this data sheet. Work small amounts of mixed BluCem HB30 into the primed or dampened surface. Do not exceed 40mm of thickness in any wet layer. Roughen the surface between each layer and wait until initial set or all latent heat has dissolved prior to application of next layer.

CURING

It is recommended that the final surface finish layer is coated with curing compound or otherwise maintained wet for at least three days.





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PRODUCT DATA

Packaging:	15kg bags
Mixing Ratios:	2.4 - 2.6 litres of water per 15kg bag of BluCem HB30
Yield:	~12 litres per 15kg bag (applied by trowel)
Set Times:	Initial - 5 hours (AS1012.18) Final - 7 hours (AS1012.18)
Wet Density:	1400kg/m ³ (AS1012.2)
Compressive Strength:	10MPa @ 24 hours (AS2350.11) 23MPa @ 7 days 27MPa @ 28 days
Tensile Strength:	2MPa @ 28 days (AS1012.10)
Flexural Strength:	4.5MPa @ 28 days (ASTM C 348)
Elastic Modulus:	10GPa @ 28 days (AS1012.17)
Coefficient of Thermal Expansion:	14µstrain/°C
Chloride Content:	<0.01% (AS1012.20)
Clean Up:	Clean tools and surfaces using water prior to curing
Storage:	Store in cool dry conditions Shelf life is 12 months

STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this publication is based on the present state of our best knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by Commonwealth or State Legislation. The owner, their representative or the contractor is responsible for checking the suitability of products for their intended use.

Product properties are dependent upon seasonal and geographical criteria. Product properties and performance may vary between countries and locations within. We recommend that you clarify your specific requirements with your local Bluey representative to ensure that all specific project requirements are met.

NOTE

Field service where provided, does not constitute supervisory responsibility. Suggestions made by Bluey Technologies Pty Ltd either verbally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not Bluey Technologies Pty Ltd are responsible for carrying out procedures appropriate to a specific application.

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