

# BluCem HE80AG

EARLY STRENGTH CEMENTITIOUS GROUT WITH AGGREGATE



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### DESCRIPTION

BluCem HE80AG is a one component cementitious powder with aggregate which requires only the addition of water to form a fast setting durable grout.

### USES

BluCem HE80AG is designed to offer a high early strength material where rapid strength gain is a requirement. The high early strength allows infrastructure to be returned to early service. High ultimate strengths and high durability are a unique feature for this type of grout. All structural repairs should be designed and approved by a Structural Engineer.

### ADVANTAGES

- Type C Class, dual shrinkage control grout
- Special additives to improve chloride and sulphate resistance
- Rapid strength gain helps with early structural and strata support
- Pre-blended aggregate assists with mixing and deeper pour applications
- Chloride free

### 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 may be possible in certain applications where high bond strength is required, contact Bluey for further details. Application of BluCem HE80AG must commence within 4 hours of primer application.

### MIXING

Measure and place 80% of the specified volume of potable water to the high shear mixing vessel. Start mixer and slowly add BluCem HE80AG powder. If powder addition is too fast then large lumps will form and final mix will be slow reaching uniform consistency. Following addition of all powder, mix for 1 - 2 minutes or until uniform consistency then add final 20% of potable water. More or less water may be added within the ratio limits specified on this data sheet. Do not mix more material than can be placed in 20 minutes.

### APPLICATION

BluCem HE80AG may be poured or pumped into place. Check formwork for leaks prior to mixing and application of grout. Do not exceed the maximum application thicknesses specified in this data sheet for any wet layer. Care must be taken to prevent product from setting during mixing and pumping operations. Large volumes of grout and hot environmental conditions will tend to generate high heat and accelerate set times.

### CURING

It is recommended that the final surface finish layer is coated with curing compound or otherwise maintained wet for at least 24 hours.





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### PRODUCT DATA

<b>Packaging:</b>	20kg or 1000kg bags
<b>Ratio:</b>	2 - 2.4 litres of water per 20kg bag of BluCem HE80AG
<b>Yield:</b>	~9.6 litres per 20kg bag
<b>Pot Life (Still):</b>	5 - 30 minutes
<b>Pot Life (Agitated):</b>	30 - 50 minutes
<b>Initial Set:</b>	25 minutes (AS1012.18)
<b>Final Set:</b>	40 minutes (AS1012.18)
<b>Application Thickness:</b>	Refer to Bluey for advice and approval on pour thickness dimensions exceeding 100mm
<b>Maximum Exotherm:</b>	80°C @ 200mm thickness
<b>Mass per Unit Volume:</b>	2290kg/m <sup>3</sup> (AS1012.5)
<b>Compressive Strength:</b>	15MPa @ 2 hours (AS1478.2 Appendix A) 30MPa @ 3 hours 40MPa @ 6 hours 55MPa @ 24 hours 65MPa @ 7 days 100MPa @ 28 days
<b>Dry Shrinkage:</b>	<200 $\mu$ strain @ 28 days (AS1478.2 Appendix B)
<b>Chloride Content:</b>	<0.01% (AS1012.20)
<b>Maximum Particle Size:</b>	3mm
<b>Clean Up:</b>	Clean tools and surfaces using water prior to curing
<b>Storage:</b>	Store in dry conditions Shelf life of 12 months

Test results shown were at 2.2 litres per 20 kg bag and with a mixing temperature of 23°C

Pot life is temperature dependant. An increase in grout temperature by 10°C will halve pot life. Bluey recommends preconditioning powder and water to around 20°C for best results

### 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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