DESCRIPTION
BluCem FB200 is a one component free flowing cementitious powder that only requires the addition of water in a suitable mixing/pumping machine to form a high yield pumpable grout.

USES
BluCem FB200 has been designed for backfilling of voids around underground structures, consolidation of broken strata and filling of an annulus between host and liner pipes in pipeline remediation. Due to its unique formulation, BluCem FB200 offers maximum yield at high water contents while having very low shrinkage and moderate compressive strength for transfer of loads between elements.

ADVANTAGES
- High yield to minimize transport costs
- Rapid placement up to 10 cubic metres per hour for labour saving
- Fast set can minimize hydrostatic pressure in pipe lining activities
- Rapid strength gain for early load support
- Non shrink to maximize contact with surrounding elements
- Pumpable over 200 metres

MIXING AND PLACEMENT
BluCem FB200 is designed to be mixed and pumped by special purpose equipment that is available for hire through Bluey Technologies. Operators of the machine must be trained by Bluey Technologies. BluCem FB200 is designed to be used at a water powder ratio between 1.5 : 1 and 2.5 : 1.

APPLICATION
BluCem FB200 must be pumped into place. Check ducts and forms for leaks prior to mixing and pumping the grout. Once mixing and pumping operations commence, continuous flow of the grout is essential to avoid gelling of the material in the pump delivery line. Pump delivery lines can be designed for gradual withdrawal to provide progressive backfilling of the voids.

CURING
No special provisions for curing are required.
**PRODUCT DATA**

**Packaging:**
- 20kg or 1200kg bags

**Ratio:**
- 1.5 : 1 (30 litres of water per 20 kg of BluCem FB200)
- 2 : 1 (40 litres of water per 20 kg of BluCem FB200)
- 2.5 : 1 (50 litres of water per 20 kg of BluCem FB200)

**Yield:**
The powder usage to produce 1.0 cubic metre of grout will vary

<table>
<thead>
<tr>
<th>Ratio</th>
<th>1.5 : 1 Ratio</th>
<th>2 : 1 Ratio</th>
<th>2.5 : 1 Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>460 to 540kg</td>
<td>400 to 440kg</td>
<td>340 to 360kg</td>
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</tbody>
</table>

**Placement Thickness:**
- Minimum of 30mm and no maximum

**Gel Time:**
- Minutes @ 20ºC
  - 1.5 : 1 Ratio
  - 2 : 1 Ratio
  - 2.5 : 1 Ratio
  - 2 to 4
  - 4 to 8
  - 8 to 11

**Properties:**
Several factors will affect gel time, strength development, set time and pumping life of the grout. These are water content and temperature, water quality, ambient temperature, pumping rate, discharge hose capacity and mass of grout placed

**Fresh Wet Density:**
- 1210 to 1270 kg/m³

**Flexural Strength:**
- 1.8MPa @ 28 days @ 2 : 1 ratio

**Compressive Strength:**

<table>
<thead>
<tr>
<th>Ratio</th>
<th>1 day</th>
<th>7 days</th>
<th>28 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5 : 1</td>
<td>0.7MPa</td>
<td>5.0MPa</td>
<td>11.0MPa</td>
</tr>
<tr>
<td>2 : 1</td>
<td>0.6MPa</td>
<td>3.3MPa</td>
<td>7.5MPa</td>
</tr>
<tr>
<td>2.5 : 1</td>
<td>0.5MPa</td>
<td>1.4MPa</td>
<td>4.5MPa</td>
</tr>
</tbody>
</table>

**Maximum Pumping Distance:**
- 200 metres.

**Clean Up:**
Pumps and hoses should be thoroughly cleaned with water immediately after pumping ceases

**Storage:**
- Store in cool dry conditions
- Shelf life is 6 months

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**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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