

### Characteristics

- Functionality**
- Ease of application
  - Positive expansion to ensure effective contact and support
  - Minimal downtime
  - Elimination of site batching errors
  - High early strength and low permeability
  - Elimination of staining or deterioration
  - Chloride-free permitting use in contact with reinforced steel
  - Excellent flow properties

**Application** Apply using grout pump or manual pouring

### Area of use

- Concrete repairs and pressure grouting
- To provide heavy duty support beneath load bearing units such as machine base plates and crane rails.

### Technical data

Data	Criteria	Test Standard	Value	Unit
	Compressive strength (Flowable)	ASTM C942-86 (91)		
	@ 1 day		30	N/mm <sup>2</sup>
	@ 7 days		60	N/mm <sup>2</sup>
	@ 28 days		70	N/mm <sup>2</sup>
	Expansion characteristics	ASTM C940-89		
	@ 3 days		0.2	%
	@ 28 days		0.2	%
	Setting time	ASTM C953-87		
	• Initial set		4.7	hrs
	• Final set		5.3	hrs
	Final bleeding @ 3 hrs	ASTM C940-89	0.2	%
	The values stated are average values. Due to the use of natural raw material in our products, the actual value determined on an individual delivery may deviate slightly, without compromising product suitability.			

### Application

<b>Substrate preparation</b>	<ol style="list-style-type: none"><li>1. All concrete surfaces to be grouted must be sound, clean and free from oil, grease, laitance or any other loose adhering particles.</li><li>2. Formworks shall be sufficiently tight-fitting and sealed against leakages.</li><li>3. On the placement side, the forms should be constructed above the bottom of the plate to form a headbox. The headbox should be positioned at a minimum of 50mm from the plate and slope away at a 45° angle to assist grout placement as well as prevent air entrapment.</li><li>4. A minimum grout head (adjacent height of the slope form) of 100mm must be maintained. In general, this can be established as 1/5 of the travel distance for the grout.</li><li>5. On the opposite side, the form should be minimum 50mm away from the plate and extend at least 25mm above the bottom of the plate.</li><li>6. Non-absorbent formwork is preferred, otherwise, it should be properly oiled to prevent grout adhesion.</li><li>7. Thoroughly wet all surfaces prior placement and remove any excess water just before introducing the grout. Bolt holes to be grouted should be cleaned of all debris, dirt and water by oil-free compressed air or vacuum.</li></ol>
<b>Material preparation</b>	<ol style="list-style-type: none"><li>1. Pour 4.5 - 4.8L of clean potable water into a mixing container.</li><li>2. With the mixer running, slowly add in the total content of the grout.</li><li>3. Mix continuously for about 3-5 minutes until a smooth and even consistency is obtained.</li><li>4. Flow consistency should be checked and care should be taken to ensure the grout will not bleed.</li></ol>

<b>Coating procedure</b>	<p><u>Placing</u></p> <ol style="list-style-type: none"> <li>1. The mixed grout should be placed promptly before it stiffen. Higher temperature will accelerate working time.</li> <li>2. <b>Cem Grout S</b> can be placed in thickness from 20mm to 100mm in a single pour.</li> </ol> <p>For thicker section, it is necessary to fill out the grout using well graded, cleaned aggregates in sizes range of 4mm - 10mm. Quantity of aggregate added to the grout should not exceed 1 part aggregate to 1 part grout by weight.</p> <ol style="list-style-type: none"> <li>3. Pour grout from one side only to avoid air entrapment.</li> <li>4. Adequate grout head must be maintained at all time to achieve a continuous flow.</li> <li>5. Use a rod or strap to assist in large/difficult placement as well as to facilitate maximum surface contact.</li> </ol> <p><u>Curing</u></p> <p>As soon as the surface sheen disappear and the grout has began to stiffen, water pondor cover with damp hessian, plastic sheet or other approved means such as curing compound to prevent premature drying.</p>
<b>Yield</b>	One 25kg bag of <b>Cem Grout S</b> will yield approximately 0.013 - 0.014 m <sup>3</sup> of fluid grout.

<b>Consistency on mixing</b>	<b>Water content (litres / 25kg bag)</b>
Flowable	4.5 - 4.8
Trowellable	3.8 - 4.3
Application temperature	Minimum application temperature +8°C
	Maximum application temperature +45°C
Cleaning of tools	Tools can be cleaned immediately after use with water



# Cem Grout S

## High Performance Prepacked Grout Data Sheet

### Delivery

**Colour** Grey

**Packing** **Cem Grout S** is available in 25kg bag.

### Storage

**Storage life/conditions** The shelf life of **Cem Grout S** is approximately 12 months if stored in cool dry conditions.

### Special notes

**Safety Precautions** After full curing, **Cem Grout S** is physiologically harmless. For best protection, wear gloves and goggles while working. Splashes of grout to the skin or eyes should be washed off immediately with clean water. In the event of prolonged irritation, seek medical advice.

**Technical Support** Please consult Technical Service Department or the local sales office for further information and any site assistance required.

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**Health & Safety** Some of the components of this product may be hazardous during mixing and application. Please consult the relevant Health & Safety Data Sheets, available from **LAMACO Malaysia** on request and sent with each delivery.



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