

About this product

AGE FiveStar Construction Grout is a premixed cementitious grout developed for application where an economical shrinkage compensated grout is required.

AGE Five Star Construction Grout is based on specially selected cements, graded aggregated and admixtures including a special patented mineral expansive agent. This special formulation produces a grout which is non-shrink by ASTM C827 'Early Volume of Cementitious Mixtures. It does not contain iron, aluminium or other additives which produce non-shrink characteristics by chemical reaction. This eliminates any subsequent problems of dimensional instability, corrosion or staining.

AGE Five Star Construction Grout is designed to be placed by either head pressure or pumping techniques. A trowellable consistency mortar can also be mixed.

Uses

- Concrete patch repair.
- Honeycomb repair.
- Pressure Grouting.
- Void Filling.
- Underpinning.
- Grouting precast wallpanels, beams and columns.

Typical properties

Pourable mix at 20°C			
Compressive strength, ASTM C109	24 hours	18 N/mm ²	40
	3 days	34 N/mm ²	
	7 days	N/mm ² 55	
	28 days	N/mm ²	
Tensile strength, ASTM C307	28 days	4.5 N/mm ²	
	28 days	9.5 N/mm ²	
Flexural strength, ASTM C580		28 days	9.5 N/mm ²
Fresh wet density		2150kg /mm ³	

Note: Other Five Star Products are available for

Features and benefits

- High early strength.
- Does not contain iron or aluminium and is non-staining.
- Can be poured, pumped or trowelled.
- Non-shrink over range of temperatures and site conditions.
- Factory blended.
- Thermal expansion similar to that of ordinary concrete.

Non-shrink properties

The addition of water mixing causes release of air from the special patented mineral expansive agent which creates a low pressure expansion during the plastic state when most shrinkage normally occurs.

AGE Five Star Construction Grout is shown to be non-shrink by ASTM C827 'Early Volume Change of Cementitious Mixtures' which, unlike other methods, measures expansion or shrinkage from time of placing.

Preparation

All surfaces should be clean and sound. Concrete surface must be free from any contamination including oil, grease, laitance and dust-free and maximum bond the surface should be roughened and presoaked with clean water. Immediately prior grouting remove free water including that in bolt and recesses. Form work should be well sealed to prevent leakage.

Application

Mixing should be carried out in a forced action grout mixer. For small quantities, mixing can be by slow speed drill (max. 500rpm) with suitable grout paddle.

Approximate clean water content:

Trowellable mix	: approx. 3 litres per 25kg bag.
Pumpable mix	: 3.5-4.25 litres per 25 kg bag.
pourable mix	: 4.25-4.50 litres per 25kg bag.

Add 80% of mixing water first then blend in the grout to form a stiff consistency. Slowly add the remaining water until the desired consistency is obtained. Do not exceed maximum water content. Total mix time approximately five minutes. Mixing and placement can be carried out between +5°C and 40°C. AGE Five Star Construction Grout will perform similarly to other cementitious mixes based on Portland cement in the temperature range of -20°C to +150°C.

When pumping or pouring sufficient material must be mixed to give continuity until application is complete.

When thickness of grout is greater than 50mm, the grout may be bulked out with clean single sized aggregate. Please contact our Technical Department.

Curing

AGE Five Star Construction Grout is based on Portland cement and good concreting with regard to placing and curing must be observed.

To prevent rapid drying due to high temperature and/or strong winds the grout should be protected by wet hessian, plastic sheeting or a proprietary curing compound.

Packaging and yield

AGE Five Star Construction Grout is supplied in 25kg polythene lined paper sacks.

For a pourable mix the yield is 13.5 litres of grout and for a pumpable mix 13 litres.

For estimating purposes 5% extra should be allowed for wastage.

Shelf life and storage

Store in cool dry place in unopened bags. Shelf life in correct storage conditions is approximately 12 months.

Health and safety

This products contains cement which, when mixed with water is strongly alkaline and cause skin irritation.

Operatives should wear protective clothing and work in well ventilated conditions. If the product enters the eyes, wash thoroughly with clean water. If discomfort continues, seek medical advice.

For further information please refer to Material Safe Handling Guide.

Quality

AGE Products are factory produced and quality controlled and when used as described will perform satisfactory. AGE cannot be responsible for other materials, misuse of the product or poor workmanship AGE have the right in any dispute arising to have the product tested by an accepted method.

Technical service

We can provide technical service at the specification stage and/or during application through our Technical Department or Laboratory. Detail specification or further information can be provided for specific projects or more general works. Site visits and on-site demonstrations can be arranged on request.



* Trade mark of Five Star Products Inc, from whom we have obtained a license to manufacture.

To the best of our knowledge and belief, the information contained in this leaflet is true and accurate, but as conditions of use and any labour involved are beyond our control, the end user must satisfy himself by prior testing that the product is suitable for his specific application, and no responsibility can be accepted, or any warranty given by our Representatives, Agents or Distributors. Test results shown reflect typical figures based on laboratory testing under

AGE INDUSTRIES & TRADING SDN BHD
(320310-H)

No. 67, Jalan 30A/119, Taman Taynton View, 56000 Kuala Lumpur.
Tel: 603-9130 7563 Fax: 603-9130 8580
E-Mail: age@agesb.com Website: www.agesb.com