DuraGrout 825

Self Levelling, Pumpable, Dual Shrinkage
Compensated Cementitious Grout

PRODUCT DESCRIPTION

DuraGrout 825 is a pumpable, dual shrinkage compensated grout, which is self-levelling and provides extended workability when mixed and placed. It is designed to provide a high ultimate compressive strength. DuraGrout 825 contains only natural aggregate and an expansive cementitious binder.

PRIMARY APPLICATIONS

- Concrete repair application where a form and pour materials are required
- Repair work for precast columns
- Machine foundations
- Concrete anchors
- Bridge bearings
- Rail beds
- Cavities

FEATURES & BENEFITS

- Easy to mix and apply
- Good flow characteristics
- Rapid strength development
- High ultimate strength
- Impact resistance
- Non-corrosive and non-toxic
- Dense and non-shrink
- Good pumping properties

PACKAGING

25 kg bags. (25 kg yields 13.6 L of fluid grout when mixed with 4.2 L of water.)

SHELF LIFE

6 month from the date of production if stored properly in undamaged, unopened, original sealed packaging, in dry conditions at temperature between + 5˚C and + 40˚C. Protect from direct sunlight.

DIRECTIONS FOR USE

Substrate Quality: Concrete, mortar and stone surface must be sound, clean, free from frost, oil, grease, standing water and all loosely adhering particles and other surface contaminants.

Surface Preparation: The substrate should be prepared by suitable mechanical preparation techniques such as high pressure water, breakers, grit blasting, scabblers, etc.

Mixing Consistency:	**Estimated Water Content***
Fluid	4.1 – 4.3 Litre per 25 Kg bag
Flowable	3.8 – 4.0 Litre per 25 Kg bag
Plastic	3.4 – 3.6 Litre per 25 Kg bag

*Do not add water in an amount that will cause bleeding or segregation. More or less water may be required to achieve desired placing consistency, depending on temperature or other variables. Do not add sand or cement to the grout since this action will change its grouting characteristics.

Mixing: Place about 70 – 80% of premeasured clean water (depending on consistency required – refer to mix ratio) into a clean container and gradually add the whole bag of DuraGrout 825 into it while continuously mixing.

Add the remaining water until the desired consistency is obtained.

Mixing Time: Mix for 2 to 3 minutes with a slow speed drill (500 rpm max.)

Application Method: Use DuraGrout 825 for grouting only

After mixing stir lightly with a spatula for few seconds to release any entrapped air. The grout is then poured immediately into the prepared formwork.

When carrying out baseplate grouting, ensure sufficient pressure head is maintained for uninterrupted mortar flow. For formwork repair, the prepared formwork must be firmly in place and keep watertight.

When placing grout over a large area, it is important to maintain a continuous flow throughout. Work sequence must be properly organised to ensure the uninterrupted flow. In large areas, DuraGrout 825 may be pumped using heavy duty diaphragm pump. Screw feed and piston pumps may also be used.

Specific Areas of Application

- Grouting under baseplate – use pourable consistency
- Formwork grouting (example deep honeycombs, column reinforcement, etc.)

  - Pouring method – use flowable/pourable consistency.

  - Pre-packed method – use flowable consistency.
- Grouting anchor bolts – use pourable consistency.
- Grouting large volumes – for section thicker than 50 mm, it is necessary to fill the DuraGrout 825 with graded 10 mm aggregates to minimise temperature rise generated during the curing stage. The quantity of aggregates should not exceed 1 part aggregates to 1 part DuraGrout 825 by weight. For such mixes, a conventional concrete mixer and pump may be used. To further ensure that air entrapped during mixing is allowed to fully escape, it may be necessary to make breather holes. Use still rods or chains to assist the flow of grout where necessary.

Curing: If formwork type repair is used, leave the formwork in place for at least 3 days. Upon removal of the formwork, cure the exposed surfaces immediately with curing compound or other approved curing method.

Cleaning Tools: Clean all the tools and application equipment with water immediately after use. Hardened and/ or cured material can only be mechanically removed.

HEALTH & SAFETY PRECAUTIONS

The Technical and Safety Data Sheets must be read and understood before use.

The use of suitable face mask is recommended along with, cement resistant gloves and goggles is advised.

CONDITIONS OF USE AND DISCLAIMER

The information contained in this TDS is given in good faith based upon our current knowledge and does not imply warranty, express or implied. The information is provided and the product is sold on the basis the product is used for its intended purpose and is used in a proper workmanlike manner in accordance with the instruction of the TDS in suitable and safe working conditions. Under no circumstances will the Company be liable for loss, consequential or otherwise, arising from the use of the product.

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TECHNICAL INFORMATION

Properties		Flowable Consistency	Fluid Consistency
Flow:	BS Cone	~ 250mm	~ 290mm
	JA Cone	~ 18 sec	~ 13 sec
Expansion at 24 hours:		~ 0.60%	~ 0.60%
Initial setting time:		~ 4 hours	~ 4 hours 30 min
Compressive strength:	1 day	~ 30 N/mm^2	~ 25 N/mm^2
	7 days	~ 50 N/mm^2	~45 N/mm^2
	28 days	~ 70 N/mm^2	~ 60 N/mm^2
Flexural strength:	7 days	~ 5.0 N/mm^2	~ 4.0 N/mm^2
	28 days	~7.0 N/mm^2	~ 6.0 N/mm^2

The above tests were conducted under laboratory condition in accordance with the following standards:

- Initial setting — ASTM C 191
- Expansion — ASTM C 940
- Compressive strength — ASTM C 109
- Flexural strength — BS 4551

Wet Density: 2.1 kg/litre (depending on consistency and temperature)

Aggregate Size: 1.2 mm max.

Layer Thickness: 5 – 50 mm per pour