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dura.®grout GP

NON-SHRINK CEMENTITIOUS GENERAL PURPOSE GROUT

DESCRIPTION

dura.®grout GP is a ready-for-use (merely add water) Portland cement-based grouting compound. It contains graded siliceous aggregate and chemical reagents which prevent shrinkage during curing.

USES

Consistency range at PLASTIC or POURABLE consistency to suit the following typical applications:

BEDDING: column base plates, steel support structures.

GROUTING: non-critical caulking anchor bolts, top steel.

REPAIRING: cavities in concrete in non-critical areas.

For concrete repairs see our dura.®rep range of products.

ADVANTAGES

- Quickly develops placeable consistency.
- Impermeable
- Non-shrink
- Adjust consistency to suit application requirements
- Remains cohesive and does not segregate or bleed

DESIGN CRITERIA

A minimum clearance of 50 mm is required between bed and base. For smaller areas where the flow will not be restricted, a limited minimum thickness of 25 mm is recommended. When grouting anchor bolts, three times the bolt diameter is necessary. Smaller clearances should be grouted with one of the epidermix range of epoxy compounds.

TYPICAL PHYSICAL PROPERTIES

Consistency	Pourable	Plastic
Water/ 25 kg	4.5 litres	3.0 litres
Fresh wet density	2.01 kg/l	2.20 kg/l
Yield (25 kg bag)	≈ 14.5 litres	≈ 12.7 litres
Free expansion	1.6%	0.6%
Flow Table	270 – 290 mm (No drops)	150 – 170 mm (25 drops)
Compressive Strengths - MPa		
1 day	6.0MPa	15.0
3 days	19.0 MPa	38.0
7 days	23.0 MPa	44.0
28 days	> 40	≥ 65
All tests were conducted at 23 – 25 °C		

SURFACE PREPARATION

Provision for the escape of entrapped air must always be made. Contact surfaces must be clean, sound, free from dust and shutter release oils. Concrete surfaces must be thoroughly pre-wetted but excess surface water (free water) must be removed prior to placing the grout. Surface and ambient temperatures must be greater than +5 °C and rising. Always ensure that the shutters

are watertight and sealed to prevent suction of water from the product. Ensure that the grout delivery head is of adequate height in order to accommodate the distance the grout must flow. Always pour from one side thus ensuring that the grout fills the void without entrapping air.

BONDING/PRIMING

No primer required but in certain instances where structural bonding is required **abe® epidermix 344** should be used.

Ensure that the substrate is thoroughly saturated (SSD), surface saturated dry at least 12 hours prior to placing the grout. This reduces suction by the substrate that would absorb water from the grout and in turn impair the flow properties of the grout.

MIXING

All water contents apply to 25 kg pockets of **dura.®grout GP**. Water quantities must be adjusted to match size of mix. Mixes must always use complete pockets, but more than one pocket may be used. Mixing of grout may be carried out in a pan mixer, drum mixer or by using a slow-speed heavy duty electric drill fitted with a suitable paddle for mixing mortars. Using the standard 25 kg pocket of grout, add 3.5 L of clean water to the mixing vessel. While stirring continuously, add the dry powder until the mixture is free from lumps. Then add further water (1 L), continue mixing until a smooth, creamy consistency is obtained. Total mixing time should be approximately three minutes.

The water demand to obtain the desired plastic consistency for **dura.®grout GP** must be reduced as required.

EXTENDING dura.®grout GP

The minimum depth of grout to qualify for extending with 13 – 16 mm clean dust free stone is 100 mm. The estimated water demand for a pourable (flow table spread 270 – 300 mm – with no drop) consistency is 4.5 litre per 25 kg bag, or less depending upon consistency required, is added to the mixer first followed by the dry grout.

After mixing for 2-3 minutes, 14 litres of 13 – 16 mm clean stone should be added, mix for an additional 2 minutes to ensure good dispersion of the aggregate is obtained. After extending the grout, a lessening of flow of the mixed grout will be noted. Under no circumstance may the water demand exceed 4.5 litres/25 kg of grout excluding stone, as this would impair the quality of the matrix and the product, possibly bleed, shrink, and not perform to our specification.

This extended grout may require agitation by means of strapping to aid in placing thereof.

COVERAGE

One bag of **dura.®grout GP** will yield approximately 0.0145 m³ (14.5 L) of grout (4.5 litre water demand). Yield as per extending above 0.0245 m³ (24.5 litres) of grout using 4.5 L water demand (LBD of stone of 1.35).

APPLICATION

The mixed grout should be poured into the cavity at one point only to avoid entrapping air. For best results, mixed grout should be poured within 10 minutes of mixing and definitely within 30 minutes. If grout is not placed immediately after mixing, keep the material agitated. Grouting mixture more than 30 minutes old must be discarded. **dura.®grout GP** can be compacted by gentle rodding or punning.

Do not re-temper the grout, should the consistency drop due to time lapse, then discard the mix and mix a fresh batch of product.

CLEANING

dura.®grout GP should be removed from tools and mixing equipment immediately after use and before material has set with clean water. Cured material can be removed mechanically.

PROTECTION ON COMPLETION

Grout surfaces should be protected from wind or high temperature, which can cause rapid drying. Cover the surface with damp sacks. Do not allow the sacks to dry out; alternatively apply **CHRYSO Cure R** or **C Cure WB** curing compound or as recommended by **abe.®Construction Chemicals**.

MODEL SPECIFICATION

The grout will be **dura.®grout GP**, a pre-packed, one-component, non-shrink, precision grout applied in accordance with the recommendations of **a.b.e.® Construction Chemicals**, including curing with **CHRYSO Cure R** or **CHRYSO Cure WB**.

PACKAGING

dura.®grout is supplied in 25 kg polyethylene lined paper bags.

(Product code: 67209025)

NOTE

For precision or other critical high performance grouting requirements of heavy machinery or other applications use dura.®grout.

For other quick setting or chemical resistant grouting applications contact **abe.®Construction Chemicals**.

HANDLING AND STORAGE

dura.®grout GP has a shelf life of 12 months if kept in a dry store in sealed bags. If stored in high temperature and in high humidity locations the shelf life may be reduced.

HEALTH & SAFETY

Product safety information required for safe use is not included. Before handling, read product and safety data sheets and container labels for safe use, physical and health hazard information. The safety data sheet is available from your local **a.b.e.® Construction Chemicals** sales representative.

IMPORTANT NOTE

This data sheet is issued as a guide to the use of the product(s) concerned. Whilst **a.b.e.® Construction Chemicals** endeavors to ensure that any advice, recommendation, specification or information is accurate and correct, the company cannot - because **a.b.e.®** has no direct or continuous control over where and how **a.b.e.®** products are applied - accept any liability either directly or indirectly arising from the use of **a.b.e.®** products, whether or not in accordance with any advice, specification, recommendation, or information given by the company.

FURTHER INFORMATION

Where other products are to be used in conjunction with this material, the relevant technical data sheets should be consulted to determine total requirements. **a.b.e.® Construction Chemicals** has a wealth of technical and practical experience built up over years in the company's pursuit of excellence in building and construction technology.

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