



# duragrout P

## Non-shrink cementitious grout for pumping

### DESCRIPTION

**duragrout P** is a ready to use blend of Portland cement and additives that require only water addition to produce a non-shrink grout specifically suitable for pumping. As a result the grout gains strength rapidly whilst maintaining a fluid consistency for pumping into gaps with widths of 10-40 mm.

### USES

- For BEDDING - column base plates, machinery base plates, bearing plates, crane rails.
- For GROUTING - anchor bolts, cables, starter bars, top steel.
- For PUMPING - into confined spaces.
- For HORIZONTAL GROUTING - cavities in horizontal spaces.

### BENEFITS

- Quickly develops placeable consistency.
- Remains cohesive and does not segregate.
- Expansion system compensates for shrinkage and potential settlement.
- **duragrout P** can be pumped long distances into narrow gaps.
- High early strength ensures limited impact on construction programmes or maintenance shut-downs.
- **duragrout P** is a consistently high quality durable product of which long-term performance can be expected.

### SURFACE PREPARATION

All surfaces should be clean and free from any laitance, oils or grease. Concrete surfaces are to be wetted a few hours before grouting, taking care to remove any remaining water immediately prior to grouting. Any defective concrete should be cut back to sound material.

Take care to design gaps to ensure a continuous flow of grout through the gap. Other than making provision for the escape of entrapped air, the gap or cavity must be watertight to retain the flowing grout and prevent the suction of water from the grout.

A minimum clearance of 10 mm needs to be maintained between bed and base.

Smaller clearances should be grouted with one of the **epidermix** range of epoxy compounds.

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.

Base plates must be clean and free of any scale or rust. Grit blasting to SA 2½ profile is recommended whenever possible

pocket may be used or mixed at a time.

Mixing of grout may be carried out in a pan mixer, drum mixer or by using a slow-speed electric drill fitted with a suitable paddle.

Always use clean water. For flowable consistency use 9-11 litres of water per pocket and for trowelable consistency use 6-8 litres of water.

Accurately measure the water into the mixing vessel and whilst slowly adding the **duragrout P** mix until a homogeneous, lump free mixture is obtained. This should not take longer than 5 minutes.

See data sheet '**Preparation of Surfaces**' for details.

### PLACING

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 20 minutes. After 20 minutes the grout may not expand.

If grout is not placed immediately after mixing, keep the material agitated. Grouting mixture more than 20 minutes old must be discarded. **duragrout P** can be compacted by gentle rodding or punning. It may also be applied by means of standard low-pressure grouting pumps.

**Do not re-temper the grout should the consistency drop due to time lapse.**

### PUMPING

**duragrout P** may be pumped using any standard diaphragm, piston or screw fed pump capable of delivering at a constant pressure of 14,7 psi. The supply diameter should be at least 20 mm.

The injection process should be continuous, from one direction and the vents sealed in the direction of the flow.

TYPICAL PHYSICAL PROPERTIES	
Compressive strength ASTM C109	1 day - 8 Mpa 7 days - 33 Mpa 28 days - 48 Mpa
Flexural strength	6.5 Mpa
Fresh wet density	± 2 300 kg/m <sup>3</sup> (depends on fluid)
Yield	Trowel ±12 litre Flowable ± 15 litre
Expansion	+ 3,8%
Young's modulus (E)	14 kN /mm <sup>2</sup>
Plastic restraining pressure	0,0035 Mpa
Expansion time	Start 15 min Complete 2 hours

### MIXING

All water contents apply to 25 kg pockets of **duragrout P**. Water quantities must be adjusted to match size of mix. Mixes must always use complete pockets, but more than one



## **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 any of the **duracure** curing compounds. See relevant data sheets for details.

## **TEMPERATURE AND RELATIVE HUMIDITY**

Surface, ambient and water temperatures should not be less than +5° C and rising. The ideal temperature range is between 20 and 30 deg C.

## **MODEL SPECIFICATIONS**

### **Non-shrink cementitious pumping grout for narrow gaps and ducts.**

The grout will be **duragrout P**, a pre-packed, non-shrink grout applied in accordance with the recommendations of **abe construction chemicals**. The grout will have a minimum 7 day compressive strength of 30 MPa.

## **PACKAGING**

**duragrout P** is supplied in 25 kg polyethylene lined paper bags.

## **HANDLING & STORAGE**

This product has a shelf life of 12 months if kept in a dry cool place in the original packaging. In more extreme conditions this period might be shortened.

## **HEALTH & SAFETY**

**duragrout P** is alkaline and should not be allowed contact with skin and eyes. Avoid inhalation of dust during mixing by wearing dust masks. The use of gloves, eye protection and dust masks is advised. Immediately wash with water in the event of contact with skin. Splashes into eyes should also be washed immediately with plenty of clean water and medical advice sought.

## **IMPORTANT NOTE**

This data sheet is issued as a guide to the use of the product(s) concerned. Whilst **abe Construction Chemicals** endeavours to ensure that any advice,

recommendation, specification or information is accurate and correct, the company cannot - because **abe** has no direct or continuous control over where and how **abe** products are applied - accept any liability either directly or indirectly arising from the use of **abe** 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. **abe 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.