a.b.e.® Construction Chemicals

dura.®rep 60 & 180

RAPID-SETTING CEMENT-BASED WATER-STOPPING POWDERS

DESCRIPTION

dura.®rep 60 & 180 is a one component, cementitious blend which sets rapidly after addition of a minimal amount of clean water. They are fast setting mortars, which are easy to apply for the purpose of curtailing water seepages and similar difficult to apply situations. Under ambient temperatures of 20°C the initial set times to be expected are:

dura.®rep 60 - approximately one minute.

dura.®rep 180 - approximately three minutes.

USES

dura.®rep 60 & 180 is used to stop water flow through porous substrates and to provide a rapid temporary patch in concrete, brick and porous substrates, such as underground basements, lift shafts, tunnels, sewage manholes, pipes and mining installations. The mortar can be applied on horizontal, vertical and overhead surfaces.

ADVANTAGES

- Stopping negative pressure water migration in emergencies.
- Ready to use powder blend - only the addition of clean water is required.
- Excellent bonding to most porous substrates. Fast setting patch repair resolving seepage problems quickly.
- Contains no chlorides.

SURFACE PREPARATION

The substrate must be sound, firm, clean and free of oil, grease, loose particles, cement laitance, old layers of paint or other contaminants. In severe cases chemical or steam degreasing and high-pressure water blasting might be required. Assess the initial adhesion or the effectiveness of the degreasing by means of pull-off tests. Square cut all edges to be repaired a minimum of 15 mm deep, perpendicular to the surface, followed by the removal of all unsound material to a minimum depth of 15 mm. When using compressed air for cleaning, the air must be clean and oil free. Never feather edge the product. To seal leaks, crack openings must be chased out to approx. 20mm square. The chase should always be undercut to avoid leaving a v-section. All loose material and debris should be removed.

PROPERTIES	
Initial set time (min @ 20°C)	
dura.®rep 60 **dura.®rep 180**	Approximately 1 Approximately 3
Note: set times will be extended when mixed at lower temperatures.	
Compressive strength (28 days@ 20°C)	
dura.®rep 60	23 MPa
dura.®rep 180	39 MPa

MIXING

dura.®rep 60 and 180 are generally mixed in small quantities for specific repairs. For this reason it is more practical to mix these products by volume as per the ratio: 1 part water to 3 parts **dura.®rep**

The water must be clean and of a potable quality. The product must be mixed to a thick putty-consistency very quickly and only a quantity which can be used immediately.

APPLICATION

Work the mixed mortar into place using a gloved hand or trowel, exerting sufficient pressure to ensure complete wetting of substrate and required compaction before material can set. To plug running water, dry **dura.®rep 60** powder can be used directly onto the running water but must be held in place until an initial set has taken place. **dura.®rep 60 or 180** can be applied to horizontal, vertical or overhead surfaces at a wide range of thicknesses in excess of 15 mm. Generally, the volume of mixed material used in a single application is restricted to that which can be applied by trowel or gloved hand. The mortar can be built up to provide thicker sections. These products display heat

generation characteristics in thick applications and, although they have been formulated to minimize the effect, high heat output (exothermic) could lead to severe shrinkage and consequent cracking.

YIELD

dura.®rep 60

5 litres per 10 kg bag

12,5 litres per 25 kg

dura.®rep 180

5 litres per 10 kg bag

12,5 litres per 25 kg

PACKAGING

dura.®rep 60 and **dura.®rep 180** are supplied in 10 kg bags or 25 kg bags.

TEMPERATURE

Surface and ambient temperature must be at least +5°C and rising, ideally between 20°C and 30°C. In colder conditions warmed water may be used to improve the setting times. At ambient temperatures above 35°C, the material should be stored in the shade and cooled water used for mixing.

CLEANING

dura.®rep 60 and **180** products should be removed from tools, equipment and mixers with clean water prior to the initial set. Cured material can only be removed mechanically.

MODEL SPECIFICATIONS

dura.®rep 60

A rapid-setting one-component, cementitious blend, which sets rapidly after addition of a minimal amount of clean water.

The rapid setting mortar will be **dura.®rep 60**, a rapid-setting single component chloride-free cementitious mortar having a setting time of one minute and applied in accordance with the recommendations of **a.b.e.® Construction Chemicals**.

dura.®rep 180

A rapid-setting one-component, cementitious blend, which sets rapidly after addition of a minimal amount of clean water.

The rapid setting mortar will be **dura.®rep 180**, a rapid-setting single component chloride-free cementitious mortar having a setting time of three minutes and applied in accordance with the recommendations of **a.b.e.® Construction Chemicals**.

HANDLING & STORAGE

These products have 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

dura.®rep 60 and 180 are alkaline and must 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 thereafter. If swallowed, seek medical attention immediately - do not induce vomiting.

IMPORTANT NOTE

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