

## Fast-setting water-stopping cementitious mortar

### Description

Arki-Plug is a rapid-setting, ready-mixed hydraulic cement based mortar chemically designed to withstand continual exposure to water, even under pressure.

Arki-Plug stops running water or seepage through cracks or holes in concrete or masonry structures.

### Key functions

- ◆ To plug any leaks in any concrete or masonry surface even in the presence of active pressure leakage.
- ◆ To prevent seepage along cracks or seams at the floor and wall intersection.
- ◆ Stop leaks in basements, foundations, sewer pipes and manholes.
- ◆ Emergency repair of ruptured water pipe, damaged boat hulls and other surfaces.
- ◆ Fixings structures where immediate use is required as swimming pools, cisterns, troughs, silos, tunnels, sewers, elevator pits, electrical vaults.
- ◆ Sealing wet surfaces.

### Advantages

- ◆ Easy to handle.
- ◆ Fast setting and high early strength.
- ◆ Can be applied to horizontal, vertical or overhead surfaces at a wide range of thicknesses.
- ◆ Non-shrink and durable.
- ◆ Can be mixed with water or used dry.
- ◆ Economical to use, does not require special tools to apply.
- ◆ Can be used under water.

### Product properties

<b>Appearance:</b>	One component grey powder
<b>Bulk density:</b>	Approximately 1.2 kg/l
<b>Wet density:</b>	Approximately 2.0 kg/l
<b>Pot life (Set time):</b>	90 seconds at 23 °C 60 second at 30 °C
<b>Compressive strength (ASTM C109):</b>	At 1 hour 8 MPa At 3 days 14 MPa At 28 days 20 MPa
<b>Flexural strength (ASTM C348)</b>	At 1 hour 3.5 MPa At 3 days 4.5 MPa At 28 days 5.5 MPa

### Directions for use

#### Surface preparation

The substrate must be clean, sound and free of any surface contamination. Cracks or fissures must be opened to a enough leaving an appropriate chase for receiving Arki-Plug. In order to provide a good mechanical key, it is advisable to make a square-shaped groove; preferably dovetail to the surface to which the Arki-Plug is applied.

#### Mixing

Setting time is dependent largely on the amount of mixing water used. Standard value is (at 23°C): 1 kg Arki-Plug and approx. 0.28 litre of water. The Arki-Plug must be added to the water and mixed swiftly. Mixing time is about 15 seconds. After mixing, setting will be achieved in about 90 seconds (at 23°C). In cold weather, use lukewarm water. In higher temperatures, use cold water.

#### Applications

##### To stop leakage of running water:

To avoid wastage, only small quantities of Arki-Plug should be mixed. After mixing, using rubber gloved hands, form the material into the shape of a plug and hold until a slight rise in temperature occurs. Then firmly press and hold into the crack or joint without twist or overwork. Maintain pressure with the hand until it sets. Remove excess material with a trowel.

In certain circumstances Arki-Plug may be applied as a dry powder. Place and hold the powder directly over the leak for 30 - 40 seconds.

##### To seal joints between concrete slab and wall:

Along the concave corners, a groove of about 3 cm x 3 cm must be opened and filled with Arki-Plug in the shape of a cove. Keep damp for at least 15 minutes after setting.

##### To anchor steel bolts and other metal fixtures:

Drill hole with the depth specified by the designer. The diameter of the hole should allow a gap of, at least, 10 mm on all sides of the bolt. Centre the bolt into the hole and force Arki-Plug firmly around the bolt. Keep the material moist for at least 15 minutes. Do not apply pressure before full cure.

### Storage and shelf life

Arki-Plug has a shelf life of 12 months when stored in a dry place and good warehouse conditions in unopened, undamaged original packaging.

### Packaging

Arki-Plug is supplied in 25 kg metal buckets and 2 kg plastic buckets.

# Arki-Plug

## Safety precautions

Arki-Plug is a non-flammable material.

Arki-Plug is not classified as hazardous material under current legislations.

Arki-Plug contains cement. Therefore unnecessary contact with the product is to be avoided.

Accidental contact with skin or eyes should be washed off with plenty of clean water. In the event of prolonged irritation, seek medical advice.

Material should be disposed according to local regulations.

For further information refer to the material safety data sheet.

## Technical support

Arki provides assistance to its customers and gives site support, consultations and technical advice on all aspects related to specifications and application methods of construction chemicals and building materials.

## Additional Arki products

Arki produces high quality products intended for use in construction activity, among these products:

- Concrete admixtures.
- Concrete repair materials.
- Mould release agents and curing compounds.
- Adhesives and waterproofing materials.
- Flooring systems.
- Protective coatings.

## Product quality

All Arki products are manufactured under a quality management system independently certified to conform to the requirements of the international standards.

