

# SOUDAPLUG ST

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#### Product

Rapid-setting cement mortar. For the immediate plugging of leaks in concrete and masonry, even under high pressure.

#### Field of application

Soudaplug ST is a cement based powder that can be mixed with water to form a quick setting hydraulic mortar. The product can be used to stop active water leaks and seepage, even under high pressure through joints, cracks, honeycombs, construction faults and holes in all structures made out of concrete, masonry or stone. Can be applied even under water. Can also be used to anchor bolts and fixtures firmly.

#### Advantages

- Prepacked, just mix with clean water on site.
- Quick-setting within a few minutes.
  Easy to apply does not require special
- Easy to apply does not require special equipment or skill.
- Stops running water instantly, no injection necessary.
- Will set under water.
- Chloride free, non-corrosive to steel bars.
- Permanent solution.
- Rapid strength development, ideal for application in the winter.
- Cement-based character ensures perfect compatibility with concrete and masonry.
- Equipment can be cleaned with water.
- Plastic pails can be closed again. The product can thus be protected from moisture for later use.

#### Description

Soudaplug ST is a powder composed out of aluminate cement, selected silicas sands and modifiers. When mixed with clean water Soudaplug ST provides an quick setting plugging mortar.

#### Application

#### 1. Substrate preparation

- The substrate must be firm, free of all unsound material such as dust, oil, grease, corrosion byproducts, organic growth and all other contaminants. Remove with wire brush, chisel and hammer needle gun or high water jetting.
- Preferably, cracks and holes should be cut out to a minimum width and depth of 20 mm, cutting the sides as square as practicable. Avoid leaving a V-section.

- Flush out the hole or crack to remove all loose particles and dust.
- All surfaces should be moistened with water immediately prior to the application of Soudaplug ST.

#### 2. Mixing

- Soudaplug ST should be mixed at the rate of approx. 4-5 parts powder to 1 part clean water by volume. This mixing ratio corresponds with 0,20-0,25 L of clean water for 1 kg of Soudaplug ST.
- Mix Soudaplug ST in a rubber or plastic bowl. Add water to the dry powder during intensive, fast mixing by hand and work this into a putty consistency.
- Only make as much material as can be applied in a single go.
- Do not remix material when setting has begun.
- In cold climates, warm water can be used for mixing. In hot weather, use cold or even icecold water.

#### 3. Application

In temperatures above +5°C. Sealing active leaks

- Mould the material in your hand into an appropriate form and until slight warmth is felt. This is when the material starts to set. It is stiff but still plastic. It must have a putty consistency.
- Press the material firmly into the opening that needs to be plugged without moving and continue to exert pressure until the mortar is hard. Do not remove hand or trowel too quickly.
- Do not apply Soudaplug ST on frozen or frostcovered masonry or over frosted steel rods, because there is no adhesion on ice.
- Larger gaps can be filled in stages. Use a limited amount of material (ex. 0,3 kg) each time and work from the sides to the middle, following the above procedure. Sometimes it is advisable to place a drainpipe before applying the rapid set mortar. This is to allow excess water to evacuate during the application. The opening of this pipe can later be closed with Soudaplug ST when the rest of the material has hardened out.
- Surplus material can be trimmed off with a trowel when the material has not yet completely become hard. Work carefully from the middle to the outside.



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• Be aware: low temperatures will retard the setting, whereas high temperatures will accelerate it.

#### Anchoring, fixing

- Drill a hole sufficiently deep to properly secure the bolt or rod and large enough to leave at least 1,5 cm on all sides around the bolt or rod.
- Remove dust from borehole.
- Fill the hole completely with Soudaplug ST.
- Immediately center the bolt or rod over the hole and force in one movement into the mortar.
- Keep the bolt or rod in place without movement until Soudaplug ST is completely hardened out.

#### Junction floor and wall

- Cut out eventual crack at junction of floor and wall to at least 2 cm deep and wide, cutting back slightly into the wall and successively remove cuttings and dirt. If the wall is in masonry, rake out the bottom mortar joint to at least 2 cm deep and wide.
- Press Soudaplug ST into the prepared crack with a round tool and smooth out.
- 4. Curing
- Keep the repaired surface damp for another 15-30 minutes.

#### 5. Cleaning and Maintenance

- Mixing and application tools should be cleaned immediately with clean water.
- Remove hardened material mechanically.

#### **Technical Data**

Wet density	2,0 kg/L	
Final setting time	3 minutes	
Mixing ratio	0,20-0,25 L water / 1 kg	
Dry density	1,1-1,3 kg/L	
Maximum grain size	1 mm	
Compressive strength (1 h)	> 10 MPa	
Compressive strength (24 h)	> 20 MPa	
Compressive strength (28 d)	> 45 MPa	
Flexural strength (1 h)	> 4 MPa	
Flexural strength (28 d)	> 7 MPa	

#### Appearance

Grey powder

#### Consumption

1,7 kg dry powder per dm<sup>3</sup> (L)

#### Packaging

1 kg, 5 kg cans and 25 kg pails 1 Europallet contains 60 boxes of 6 x 1kg or 60 pails of 5 kg or 24 pails of 25 kg.

#### Storage/ Shelf Life

Store the product in a dry and well ventilated place, clear of the ground and in unopened packaging at temperatures between +5°C and 30°C. Protect from damage, moisture, freezing and direct sunlight, also during transport.

Shelf life is 12 months. Rotate stock in order not to exceed the shelf life, because material is highly hygroscopic.

#### Health & safety

General instructions for working with chemicals should be observed.

Cement based materials can irritate the skin and eyes and may cause allergic reactions. We recommend to wear protective clothing, gloves and goggles. Use a mask for respiratory protection when handling the dry powder. Do not breathe in dry powder. Wash eventual splashes to skin and eyes immediately with clean water. During work, do not drink, eat or smoke.

In the case of allergic reactions, seek medical advice.

See Material Safety Data Sheet



**Technical Data Sheet** 

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Note: the information and recommendations provided in this technical data sheet is given in good faith and based on laboratory test and on the job experience of the manufacturer. In practice, site conditions and substrates might be such that the manufacturer cannot warrant the fitness for each individual purpose. The user of the product must test the product for it's intended use and ascertain himself that the product will work under the specific conditions of the jobsite. The manufacturer does not accept any liability based on the content of the technical



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data sheet. The user must verify that he holds the latest version of the technical data sheet. The manufacturer reserves the right to change the properties of the product. Products must be properly stored, handled and applied in line with manufacturer's recommendations.