



Davco

701 CLAVEX

HIGH STRENGTH AND HIGH FLUIDITY, NON-SHRINK GROUT



ECO FRIENDLY



HIGH STRENGTH



NON SHRINK

DESCRIPTION

Davco 701 is a single component, shrinkage compensated grout which is formulated from fine graded sand, high grade cement and special additives.

Davco 701 only requires on-site addition of water to provide a high fluidity, non-shrink grout with high compressive strength.

USES

- Sealing of industrial equipment, construction pillars, rebars, anchor bolts.
- Assembly of reinforced or pre-stressed concrete elements, joint treatment, grip-filling, wedged keying.
- Underpinning.
- Bearing casting.

CHARACTERISTICS

- High mechanical strength
- Easy application
- Sealing in all positions

SPECIFICATIONS

- Grey ready-to-wet powder
 - Hydraulic binder active ingredients
 - Chloride and metal particle free
- Particle size : 0 - 2 mm
pH mortar : 12.5

Specifications are subject to change without notification. Results shown are typical but reflect test procedures used. Actual field performance will depend on installation methods and site conditions.

WORKABILITY

Fluid consistency with 16 - 19% water, i.e. 4 - 4.75 litres per 25kg bag of powder.

Sealing : plastic consistency with 11 - 14.4% of water, i.e. 2.75 - 3.6 litres per 25kg bag of powder.

Setting time*

Temperature

Fluid Consistency

Initial setting ≥ 2 hours

Final setting ≤ 10 hours

Plastic Consistency

Initial setting ≥ 1 hour

Final setting ≤ 10 hours

*average laboratory values provided as a general guide.

Compressive strength*

BS 6319 Part 2 : 1983

Fluid Consistency

Period:

7 days > 40 MPa

28 days ≥ 80 MPa

Plastic Consistency

Period:

7 days > 70 MPa

28 days ≥ 80 MPa

Flexural Strength

BS EN 1015 - 11:1999

Fluid 28 days ≥ 9 N/mm²

Plastic 28 days ≥ 9 N/mm²

Initial Surface Absorption

(BS 1881 : Part 208 : 1996) ≤ 0.005 ml/m²/s

Slant Shear Bond Strength

(BSEN 12615 : 1999) ≥ 20 N/mm²

* Tests carried out on 4 x 4 x 16 samples, kept at 20°C and 90% humidity. Average laboratory values provided as a general guide.

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INSTRUCTION

Mortar preparation

- The slurry or mortar is obtained by mixing Davco 701 with potable water.
- The quantity of water used depends on the consistency required.
- Mixing should be carried out as follows:
 - using a whisk or high-speed mixer for fluid consistency.
 - by machine or by hand for a plastic consistency.
- Mixing time : 3 minutes minimum.
- Workable life after mixing : 1 hour maximum.

BUILDING TRUST





701 CLAVEX

INSTRUCTION (CON'T)

Micro-concrete preparation

- Micro-concrete is made up by adding 10 kg of clean, damp 3/8 or 5/10 aggregate for each 25kg bag of Davco 701.
- Machine mix until a plastic consistency is obtained.

Sealing

- The diameter of the holes must be equal to at least the diameter of the anchoring rebar + 20 to 30mm.
- Depth of holes : 10 - 20 times the diameter of the anchoring rebar, depending on the resistance of the concrete (BAEL guidelines).
- The example below indicates anchoring lengths for a 12mm diameter HAFe 500 steel rebar sealed in a 30mm diameter hole.
- Above a sealing thickness of 50mm, a microconcrete should be used.
- Clean out the area to be sealed, fill with water for several hours prior to sealing.
- Remove residual water just prior to sealing.
- Position the rebar in the hole cast the mortar.
- As soon as the mortar begins to set, the exposed surfaces should be treated with a protective coating.

DOSAGE / YIELD

Davco 701

1, 25kg bag

Plastic consistency
3/8 aggregate (kg) 0

Water 2.75 - 3.6 litres
Workable volume 13 litres
Fluid consistency

3/8 aggregate (kg) 0
Water 4 - 4.75 litres

Workable volume 13.3 litres

Micro-concrete
3/8 aggregate (kg) 10

Water 2.75 - 3.6 litres
Workable volume 17.5 litres

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PACKAGING

25kg long-storage bag.

SHELF LIFE

12 months from date of manufacture if stored in unopened original packing in dry, frost-free conditions.

RECOMMENDATIONS

- Temperature range for use : 5°C to 35°C
- Apply only to clean, sound resistant substrates, free of loose material.
- Substrate must be soaked for several hours prior to application.
- Residual water must be removed prior to application.
- Surfaces must be protected from air once setting starts.
- Do not mix with other hydraulic binders.
- Sand and admixtures must not be added.
- Do not apply to a frozen or thawing substrate.
- Foresee the need for intermediate joints and respect the existing structural joints
- Aggregates used for making up micro-concrete must be frost-resistant (frost index < 10).
- Refer to safety data sheet.

Disclaimer

The use of this product is beyond the manufacturer's control and liability is restricted to the replacement of material proven faulty. The manufacturer is not responsible for any loss or damage arising from incorrect usage. Specifications are subjected to changes without prior notice. Before application, customers and users are requested to check that they have the latest version of this document from our website www.sika.com.sg



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