





# PRODUCT DATA SHEET

# Febgrout Flowable

#### UNIVERSAL ANCHORING GROUT

# **PRODUCT DESCRIPTION**

Febgrout Flowable Universal Anchoring Grout is a structural fluid precision grout specifically formulated to give high strength, shrinkage compensation and vibration resistance. This product may be poured or pumped and will fill gaps in concrete from 10 mm to 150 mm wide. It is suitable for most structural grouting applications such as bridge bearing, machine bedding, parapet legs and stanchion base plates.

## **USES**

- General purpose grouting
- Under stanchion plates
- Filling cavities, voids, gaps and recesses
- Sealing around penetrations
- Machine & base plates
- Post fixings
- For interior use

# **CHARACTERISTICS / ADVANTAGES**

- Easy to use (ready to mix powder)
- Pre-batched for quality
- Just add water
- High compressive strength gain
- Easy to mix and apply
- Contains no chloride admixtures
- Shrinkage compensated
- Fire rating and protection properties comparable to concrete
- Can be pumped or poured
- Good mechanical properties
- Hard wearing
- High water and rain resistance

# **APPROVALS / STANDARDS**

EN1504-6

#### PRODUCT INFORMATION

Packaging	25 kg bag
Appearance / Colour	Grey powder
Shelf Life	6 months
Storage Conditions	Store properly in dry conditions in undamaged and unopened original, sealed packaging between 5 °C and 35 °C.
Density	ca. 2200 kg/m³ (wet density)
Soluble Chloride Ion Content	ca. 0.01 %
TECHNICAL INFORMATION	
Compressive Strength	1 day ~20 MPa 7 days ~40 MPa 28 days ~45 MPa

EN12910

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020201010010000361

Flexural Strength	9 MPa (28 days) EN196
Tensile Adhesion Strength	2.5 MPa (28 days) EN 1542
Shrinkage	0.07 % (<1 mm/M)
Expansion	0.55 %
Reaction to Fire	Class A1 EN 13501-1

## APPLICATION INFORMATION

Mixing Ratio	Water: mortar powder = $1:6.25$ parts by weight $4.0-4.5$ litres of water per bag
Consumption	Depends on the substrate roughness and thickness of layer applied. As a guide, 1 bag yields approximately 13.0 litres of mortar
Layer Thickness	10 mm min / 150 mm max
Flowability	695 mm (0 mins), 480 mm (30 mins) EN13395-2
Ambient Air Temperature	+5 °C min. / +30 °C max
Substrate Temperature	+5 °C min. / +30 °C max
Setting Time	Initial - 210 mins, final - 300 mins EN13294

#### APPLICATION INSTRUCTIONS

#### SUBSTRATE QUALITY / PRE-TREATMENT

#### Concrete, mortar, stone:

Surfaces must be sound, thoroughly clean, free from ice, oils, grease, standing water and any loose or friable particles and any other surface contaminants.

#### Steel, iron:

Clean, free from oil or grease, rust and scale etc.

#### Shutter/Formwork:

Where formwork is to be used, all formwork should be of adequate strength, treated with release agent and sealed to prevent leakage. Sealing can be achieved by using Sikaflex® -11FC+ sealant beneath or around formwork and between joints. Ensure formwork includes outlets for extraction of the pre-soaking water. A header box/hopper should be constructed on one side of the formwork so that a grout head of 150-200 mm can be maintained during the grouting operation.

#### **MIXING**

Place the water into a forced action grout mixer or into a clean drum. Slowly add complete bag of Febgrout Flowable into the water and continuously mix for 3 minutes in mixer to achieve a uniform and lump free consistency. Alternatively use a slow speed drill (200-500 rpm) and spiral paddle mixer.

#### **APPLICATION**

Pour the mixed grout into the header box/hopper en-

suring continuous grout flow during the complete grouting operation to avoid trapping air. Use steel banding or chains to assist flow where necessary. For large volume placement, grout pumps are recommended. For cold weather working, consider using warm water to assist with achieving strength, gain & other physical properties.

#### **CURING TREATMENT**

After the grout has initially hardened, remove formwork and trim edges while concrete is 'green'. Protect the fresh material from premature drying using appropriate curing method e.g. curing compound such as Sikafloor® ProSeal, moist geo-textile membrane, hessian, polythene sheet, etc. In cold weather apply heat blankets to maintain a constant temperature.

#### **CLEANING OF TOOLS**

Clean all tools and application equipment with water immediately after use. Hardened/cured material can only be mechanically removed.

### **VALUE BASE**

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

## **LOCAL RESTRICTIONS**

- Do not exceed water addition
- Not to be used for concrete repair works
- Do not use vibrating pokers



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- Use only on clean, sound substrate
- Avoid application in direct sun and/or strong wind.
- Pour or pump from one side only
- Keep exposed surfaces to a minimum
- Do not add additional water during the surface finishing as this will cause discoloration and cracking
- Protect freshly applied material from freezing and frost
- To avoid cracking in warm temperatures keep bags cool & use cold water

# **ECOLOGY, HEALTH AND SAFETY**

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety related data.

#### **LEGAL NOTES**

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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