

PRODUCT DATA SHEET

SikaControl®-300

Expanding plasticizing agent for cement based grouts, mortars and concrete

DESCRIPTION

SikaControl®-300 is a dry powder type, chloride free additive designed to impart high fluidity to ordinary sand-cement grout mixes at a low water cement ratio. It is shrinkage compensated in the plastic state to counter the mild plastic shrinkage normally associated with site batched grouts.

USES

SikaControl®-300 is recommended for use where site batched grout mixes are preferred or necessary due to site conditions. Typical applications are :

- grouting of cable ducts in post tensioning work.
- filling gaps between prefabricated wall panels.
- underpinning work.
- pre-packed grouting of cavities.
- grouting of rock strata.
- grouting for soil stabilisation.
- grouting voids difficult to access.

CHARACTERISTICS / ADVANTAGES

- Retains filled volume by compensating for any mild plastic shrinkage.
- Enables complete filling of even narrow voids.
- Denser grout.

PRODUCT INFORMATION

Packaging	10 kg, or multi-ply paper sacks and in a box of 40 sachets of each 0.2 kg.
Appearance / Colour	Cement grey
Shelf Life	12 months from date of production.
Storage Conditions	Store properly in undamaged and unopened original sealed packaging in cool and dry conditions. Protect from direct sunlight and frost.

TECHNICAL INFORMATION

Specific Advice

Compressive strength (typical)

- Strength depends on the quality, type and proportion of cement used in the mix.

Fluidity

- Depends on the quality and grading of the sand, together with the types and proportions of the cementitious materials in the mix. For a given mix and a water cement ratio, SikaControl®-300 improves the fluidity substantially.

Shrinkage compensation

- The extent of effective shrinkage compensation depends on the type and proportion of cementitious materials in the mix and the grading of sand.

Setting times

- Depends on the type and quality of cement used. SikaControl®-300 slightly retards the setting time of the grout mix.

APPLICATION INFORMATION

Consumption

Add SikaControl®-300 at the rate of 0.2 to 1 kg for every 100 kg of cementitious materials used in the mix.

Note : If the height of the grout column is going to be more than 100 mm (e.g. Bolt holes), mix 12 mm down, clean pea gravel or crushed aggregates by up to 100 % of the weight of total mix to reduce the heat of hydration, in which case, do not sieve the grout through any screen.

The consumption of SikaControl®-300 is entirely dependent on the volume of the void to be grouted, the types and proportions of cementitious materials used in the mix.

Ambient Air Temperature

Application temperature > 10°C

BASIS OF PRODUCT DATA

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

USES

SikaControl®-300 is not recommended for grouting applications where consistently high strengths and total shrinkage compensation are critical requirements. Refer to Sika technical service for recommendations.

ECOLOGY, HEALTH AND SAFETY

SikaControl®-300 is non toxic but alkaline like normal cement. The skin of some people may be sensitive to alkalis in cement. Wear gloves and face masks while handling the product. Take all precautions normally taken while handling cement. SikaControl®-300 is not flammable.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

Ensure that the sand used for grouting is clean, well graded and dry. If the sand is wet, its moisture content in every supply lot should be checked before using.

Keep sufficient quantity of SikaControl®-300, sand, cement and other cementitious materials such as fly ash, if required, on hand before commencing grouting.

Clean all the substrate surfaces free from dust and loose particles. In case of grouting cable ducts, flush the duct with water followed by pumping in compressed air. Seal any serious breakage in the duct to prevent grout leakage later. Ensure the area to be grouted is well saturated with clean water before commencing work.

Proper design of formwork, wherever required, to suit the geometry of the space being grouted is essential for effective grouting. The formwork can be made from timber, steel, or any other suitable material depending on the circumstances. It must be grout tight, strong, and well braced to withstand the fluid pressure of the grout until it sets. Before erecting, coat the inner surfaces with a suitable release agent for easy release. Seal all the gaps in formwork, and those between formwork and concrete surface with a suitable joint sealant or using mortar mixed with SikaControl®-300 to a stiff consistency. Before commencing the grouting operation, blow clean the grouting area with oil-free compressed air.

EQUIPMENT

- Mixing with grout mixer or heavy duty slow speed drill with a grout paddle or helical type stirrer.
- Placing with double diaphragm air operated pump or a hand operated diaphragm type grout pump.

MIXING

Mechanical mixing is necessary. For a large batch use an approved grout mixer and for a small batch (up to about 50 kg at a time), use a heavy duty slow speed (approx. 600 rpm) drill fitted with a grout paddle or helical stirrer. Prepare trial mixes and check for segregation. Alter the proportion of the mix or use finer sand to prevent segregation.

Mix SikaControl®-300 with about 80% of the water required for the batch. Keeping the mixer running, add the sand and cement in the desired proportions. Mix until a homogeneous mixture is obtained. Add the remaining 20% water until the desired fluidity is achieved.

APPLICATION

Place the mixed grout within 15 minutes after mixing. The placing should be without interruptions until completion. While grouting vertical sections start from the lowest point.

Cure all exposed grout surfaces as soon as the grout reaches touch hard state with a uniform coat of SikaAntisol®.

CLEANING OF TOOLS

Clean tools and equipment with water, before the grout hardens.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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Product Data Sheet

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