BUILDING TRUST

PRODUCT DATA SHEET

SikaGrout®-210

Engineering Grout

DESCRIPTION

SikaGrout®-210 is a cement based, 1-component, ready to mix, expanding grout mortar with high early strength at temperatures below + 15°C.

USES

- Grouting heavy equipment/machine bases, base plates, bedding joints in pre-cast concrete sections, filling cavities, gaps and recesses, sealing around penetrations, post fixings
- Structural strengthening (principle 4, method 4.2 of EN 1504-9)

CHARACTERISTICS / ADVANTAGES

- Easy to use (ready to mix powder)
- Very good flow characteristics
- Quick hardening
- High final strength
- Good early strength below + 15°C
- Expands before hardening for optimal filling of cavities
- Impact and vibration resistent
- Non-corrosive
- Fire class A1

APPROVALS / CERTIFICATES

- CE-Mark initial test in accordance with EN 1504-6, MPA Hartl, Wolkersdorf

PRODUCT INFORMATION

Composition	Cement, selected fillers and aggregates, special additives
Packaging	25 kg bags
Appearance / Colour	Grey powder
Shelf life	12 months from date of production
Storage conditions	Store properly in dry conditions in undamaged and unopened original sealed packaging. Protect from humidity.
Density	fresh mortar density ~ 2.2 kg/l
Maximum grain size	Dmax: 4 mm

TECHNICAL INFORMATION

Compressive strength (EN 12190)

Temperature	Compressive strength after 24 hours	Compressive strength after 48 hours
+ 5°C	~ 10 MPa	~ 50 MPa
+ 10°C	~ 20 MPa	~ 55 MPa
+ 15°C	~ 40 MPa	~ 60 MPa
+ 20°C	~ 65 MPa	~ 75 MPa

Compressive strength after 28 days: ~ 90 MPa

Tensile strength in flexure	~ 10 MPa after 28 days	(EN 12190)
Pull-out resistance	≤ 0.6 mm at load of 75 kN	(EN 1881)
Coefficient of thermal expansion	~ 12 · 10^{-6} 1/K	(EN 1770)
Reaction to fire	Euro Class A1	(EN 1504-6)

APPLICATION INFORMATION

Mixing ratio
2.8 - 3.1 litres of water per 25 kg bag SikaGrout®-210

Consumption
As a guide ~ 1.9 kg of powder/m²/mm
This depends on the substrate roughness and thickness of layer applied.

Yield
1 bag of SikaGrout®-210 yields 12 - 13 litres of fresh mortar

Layer thickness
minimum 10 mm / maximum 40 mm

Ambient air temperature
+ 5°C minimum / + 25°C maximum

Substrate temperature
+ 5°C minimum / + 30°C maximum

Pot Life
Mixture: 3.0 litres water per 25 kg bag SikaGrout®-210

Temperature	Pot life
+ 5°C	~ 50 minutes
+ 10°C	~ 30 minutes
+ 15°C	~ 25 minutes
+ 25°C	~ 20 minutes

At higher ambient temperatures cool the mixing water.

Setting time
5 - 9 hours
Frost proof at + 5°C after 24 hours (protect fresh mortar from freezing!)

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.

IMPORTANT CONSIDERATIONS

- Not to be used for open repair works or overlay in unconfined spaces
- Refer to Method Statement for Cementitious Grouts for more information regarding substrate preparation or refer to the recommendations in EN 1504-10
- Avoid application in direct sun and/or strong wind
- Do not add water under or over recommended dosage
- Apply only to sound, prepared substrate
- Do not add additional water during the surface finishing as this may cause discolouration and cracking
- Protect freshly applied material from freezing and frost
- Keep exposed surfaces to a minimum

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 Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

Concrete
The concrete shall be thoroughly clean, free from dust, loose material, surface contamination and materials which reduce bond or prevent suction or wetting by the grout. Delaminated, weak, damaged and deteriorated concrete and where necessary sound concrete shall be removed by suitable means.
It is recommended the concrete surface shall be continuously saturated with clean water for at least 2 hours before grouting.

Steel
Rust, scale, mortar, concrete, dust and other loose and deleterious materials which reduce bond or contribute to corrosion shall be removed. Surfaces shall be prepared using abrasive blast cleaning techniques to SA 2 (ISO 8501-1).
Reference shall be made to EN 1504-10 for specific requirements.

MIXING

SikaGrout®-210 can be mixed with a low speed (< 500 rpm) hand drill mixer to avoid entraining too much air. Mix only full bags for best results.
Pour the recommended quantity of water in a suitable mixing container. While stirring slowly add the powder to the water and mix thoroughly at least for 3 minutes adding additional water within the mixing time if necessary to the maximum specified amount to adjust the grout to the required consistency.
To avoid cracks due to shrinkage at high layer thicknesses, we recommend to add admixture of dry aggregate (about 30-50 M%), e.g. round grain 4/8 mm.

APPLICATION

Remove excess water from substrate e.g. with a clean sponge, until the surface is dark matt in appearance without glistening (saturated surface dry). Surface pores and pits shall not contain water. Let the grout stand for ~ 5 minutes to release air entrained by mixing. Pour grout into the prepared openings using a sufficient pressure head to maintain a continuous flow of grout. Ensure air displaced by the mortar can easily escape.
For optimum use of the expansion properties apply the grout within ~ 15 minutes after mixing.
Avoid interruptions to work (separating layers).

CURING TREATMENT

Keep visible exposed grout surfaces to a minimum. Protect the fresh material from premature drying using appropriate curing method e.g. curing compound, moist textile membrane, polythene sheet, etc.

CLEANING OF EQUIPMENT

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

LOCAL RESTRICTIONS

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

LEGAL NOTES

Any information or suggestions for use concerning Sika's products, which we either in writing or orally have given buyers or end-users of the product, have been given in good faith based on our own experiences and based on approved praxis and the technological and scientific knowledge on the time of giving such suggestions and information, which are given without any type of guarantees, and which do not lead to any further responsibility from Sika Danmark A/S, besides what is stated in the sales agreement in question. The buyer or end-user should themselves investigate or otherwise make sure, that our products are suitable for the use in question and further make sure that the products are kept and used correct and in agreement with the published rules and considering the actual conditions in order to avoid damages or less satisfactory results. Any order is accepted and any deliverance is affected according to the general terms of sales and delivery from Sika Danmark A/S, which are considered known and accepted, and which could be handed out when asked for. Our catalogues are not up-dated automatically. The present product data sheet is only for use in Denmark. Values stated in the present product data sheet should be seen as recommended, unless stated otherwise.

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