

PRODUCT DATA SHEET

SikaGrout®-314

High Performance Grout

DESCRIPTION

SikaGrout®-314 is cement based, 1-component, ready to mix, free flowing expansion compensated low shrinkage engineering grout.

USES

SikaGrout®-314 is used as free flowing pouring mortar for layer thickness of between 10 mm and 40 mm
Suitable for grouting:

- Heavy equipment / machine bases
- Base plates
- Bedding joints in pre-cast concrete sections
- Filling cavities, gaps and recesses
- Sealing around penetrations
- Post fixings
- Suitable for structural strengthening (principle 4, method 4.2 of EN 1504-9). Installing reinforcement with an anchoring product in accordance with EN 1504-6.

CHARACTERISTICS / ADVANTAGES

- Fast strength development
- High final strengths
- Shrinkage compensated (both in plastic and hardening stage)
- Fluid consistency
- No segregation or bleeding
- Easy to use (ready to mix powder)
- Easy to mix, only add water
- Adjustable consistency
- Can be pumped or poured
- Non-corrosive
- A1 fire rating

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.
Density	Fresh density of mortar ~2.3 kg/l
Maximum grain size	D _{max} : 4 mm
Soluble chloride ion content	≤ 0.05 % (EN 1015-17)

TECHNICAL INFORMATION

Compressive strength	1 day ~30 MPa	7 days ~45 MPa	28 days ~80 MPa	(EN 12190)
Modulus of elasticity in compression	~29 GPa			(EN 13412)
Effective bearing area	> 85 %			
Tensile strength in flexure	1 day ~6 MPa	28 days ~9 MPa	(EN 12190)	
Pull-out resistance	≤ 0.6 mm at load of 75 kN			(EN 1881)
Tensile adhesion strength	≥ 2.0 MPa			(EN 1542)
Coefficient of thermal expansion	~12 x 10 ⁻⁶ 1/K			(EN 1770)
Reaction to fire	Euro Class A1			(EN 1504-6)

APPLICATION INFORMATION

Mixing ratio	3.3 to 3.7 litres water per 25 kg bag 13.2% to 14.8% litres water by weight of powder
Consumption	This depends on the substrate roughness and thickness of layer applied. As a guide, ~20 kg of powder per 10 mm thickness per m ²
Yield	1 bag yields approximately 12.3 litres of mortar
Layer thickness	minimum 10 mm / maximum 40 mm
Ambient air temperature	+5°C minimum / +30°C maximum
Substrate temperature	+5°C minimum / +30°C maximum
Pot Life	~40 minutes at 20 °C

BASIS OF PRODUCT DATA

All technical data stated in this 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 the 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

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

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.

MIXING

SikaGrout®-314 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 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.

APPLICATION

Remove excess water from substrate surface e.g. with clean sponge, until 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. For sections thicker than 100 mm or for grouting large areas, it is necessary to mix SikaGrout®-314 with graded 10 mm silt free aggregates to minimise temperature rise generated during curing stage. The quantity of aggregates should not exceed 1 part aggregates to 1 part SikaGrout®-314 by weight.

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

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

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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Product Data Sheet

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