

PRODUCT DATA SHEET

SikaGrout[®]-340 KE

CEMENTITIOUS HIGH STRENGTH ENGINEERING GROUT

DESCRIPTION

SikaGrout[®]-340 KE is cementitious, 1- part, ready to mix, shrinkage compensated, low shrinkage, high performance, free flowing, pumpable engineering grout. Suitable for machine bases, bedding joints, void filling and anchoring. Thickness: 10–300 mm.

USES

- Heavy equipment/ machine bases
- Base plates
- Bedding joints in pre-cast concrete sections
- Filling voids, cavities, gaps and recesses
- Sealing around penetrations
- Post fixings
- Suitable for installing reinforcement with an anchoring product in accordance with EN 1504-6
- Suitable for structural and non-structural repairs of concrete in buildings and civil engineering works in accordance with EN 1504-3

CHARACTERISTICS / ADVANTAGES

- High performance
- Fast early strength development
- High final strength
- Adjustable consistency
- Shrinkage compensated
- Fluid consistency
- No segregation or bleeding
- Easy to use and mix
- Can be pumped long distances

PRODUCT INFORMATION

Composition	Special cement, selected aggregates and additives
Packaging	25 Kg Bag
Appearance / Colour	Grey powder
Shelf life	12 months from date of production
Storage conditions	Product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +30 °C. Always refer to packaging.
Maximum grain size	D _{max} : ~2.36 mm

TECHNICAL INFORMATION

Compressive strength	1 Day	7 Days	28 Days
	~40 MPa	~80 MPa	~105 MPa

At +22 °C with a water mixing ratio of 12 % per 25 Kg Bag

Modulus of elasticity in compression	~35 GPa	
Tensile strength in flexure	1 Day	Approx. 9 MPa
	28 Days	Approx. 21 MPa
At +22 °C with a water mixing ratio of 12 %		
Expansion	> 0.1 % after 24 hours. Max. 2 %	

APPLICATION INFORMATION

Mixing ratio	2.6–3.0 litres water per 25 kg bag
Yield	25 kg of powder yields approximately 11.00 litres of mortar
Layer thickness	10 mm min./ 300 mm max
Ambient air temperature	+5 °C min/ +35 °C max
Substrate temperature	+5 °C min/ +35 °C max
Pot Life	~90 minutes at +20 °C
Fresh mortar density	~2.3 kg/l

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

- Not to be used for open repair works or overlay in unconfined spaces
- Keep exposed surfaces to a minimum.
- Avoid application in direct sun and/or strong wind.
- Use only on clean, sound substrate.
- The substrate must be free of ice.
- Do not exceed water addition.
- Do not use vibrating poker.
- Do not use continuous mixing equipment.
- Pour or pump from one side only.
- Do not add additional water during the surface finishing as this will cause discoloration and cracking.
- To avoid cracking in warm temperatures keep bags cool & use cold water for mixing
- Avoid exposure during rainfall and prior to final set.

ECOLOGY, HEALTH AND SAFETY

Local safety regulations must be observed and it advisable to wear PPI when working with this product with particular attention paid to cutting and handling.

Transportation Class: The product is not classified as hazardous good for transport. Disposal: The material is recyclable. Disposal must be according to local regulations. Please contact your local Sika sales organisation for more information.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

Concrete

- The concrete must be structurally sound, thoroughly clean, free from oil, grease, dust, loose material, surface contamination and materials which will impair the grout flow or reduce adhesion strength.
- Laitance, delaminated, weak, damaged and deteriorated concrete and where necessary sound concrete must be removed by suitable mechanical preparation as directed by the engineer or supervising officer.
- Any pockets or holes for structural fixings must also be cleaned of all debris.

Shutter Formwork

- Where formwork is to be used, all formwork must be of adequate strength, treated with release agent and sealed to prevent leakage of pre-wetting water and grout.
- Ensure formwork includes outlets for removal of the pre-soaking water.
- As a guide leave a gap of approximately 15 cm on one side and 5 cm on the opposite side.
- A header box or 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

Drill and Spiral Mixer

- Pour the correct amount of water into a suitable clean mixing container.
- While stirring slowly with drill and spiral mixer (200 – 500 rpm), add the complete bag of powder into the water.
- Mix continuously for 4 minutes to achieve a uniform and lump free smooth consistency.
- Do not add more water than the maximum specified.

Grout Mixer

- SikaGrout®-340 KE must be mixed using suitable grout mixing equipment combined with agitator for continuous large volume mixing.

- Volume capacity of equipment must be applicable to the volume of material being mixed for a continuous operation.
- Equipment trials must be considered to ensure product can be mixed satisfactory.
- Pour the minimum water ratio in the correct proportion into the grout mixer.
- While stirring the water, slowly add the powder to the water. Add more water within the mixing time up to the maximum allowed until the desired consistency is achieved. Mix continuously for a minimum of 3 minutes.
- For larger mixes the mixing time must be extended to approximately 5 minutes or as necessary until the grout achieves a lump free smooth consistency.
- Do not add more water than the maximum specified.
Note: Do not use continuous mixing equipment.

APPLICATION

Reference must be made to further documentation where applicable, such as relevant method statement, application manual and installation or working instructions.

Pre-wetting

- The prepared concrete substrate must be thoroughly saturated with clean water for a recommended 12 hours before application of the grout. The surface must not be allowed to dry within this time.
- Prior to application of the grout, all water must be removed from within formwork, cavities or pockets and the final surface must achieve a dark matt appearance (saturated surface dry) without glistening.

Placing

- Apply the material shortly after mixing to take advantage of the expansion properties.
- Immediately after mixing pour or pump the mixed grout into the header box or hopper ensuring continuous grout flow during the complete grouting operation to avoid trapping air.
- For large volume placement, grout pumps are recommended.
- Equipment trials must be considered to ensure product can be pumped satisfactory.

Surface Finishing

- Finish exposed grout surfaces to the required surface texture as soon as the grout has started to stiffen.
- Do not add additional water on the surface.
- Do not over work surface as this may cause surface discolouration and cracking. After the grout has initially hardened, remove formwork and trim edges while concrete is 'green'.

Cold Weather Working

Consider using warm water to assist with achieving strength gain and maintaining physical properties

CURING TREATMENT

Protect the fresh material from premature drying and cracking using an appropriate curing method e.g. curing compound, moist geo-textile membrane, hessian, polythene sheet etc. In cold weather apply insulated blankets to maintain a constant temperature to prevent surface damage from freezing and frost

CLEANING OF EQUIPMENT

Clean all tools and application equipment with water immediately after use. Hardened and 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

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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