

PRODUCT DATA SHEET

SikaGrout®-300 RH

SHRINKAGE COMPENSATED RAPID HARDENING, HIGH STRENGTH CEMENTITIOUS GROUT

DESCRIPTION

SikaGrout®-300 RH is cementitious, 1- part, ready to mix, shrinkage compensated, low shrinkage, high performance, free flowing, pumpable engineering grout. SikaGrout®-300 RH is designed to achieve high early strength and ultimate strengths at a fluid consistency. It is nonmetallic and contains no chlorides.

USES

SikaGrout®-300 RH may only be used by experienced professionals.
SikaGrout®-300 RH is ideal for many types of structural grouting applications where high early age and long term compressive strengths are required.

- 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.
- Suitable for structural and non-structural urgent repairs of concrete.

CHARACTERISTICS / ADVANTAGES

- High early age strength development
- Minimum bleeding and segregation
- Increased resistance to aggressive liquid penetration when hardened
- Very high final strengths
- Adjustable consistency
- High flow characteristics
- Non corrosive, non toxic
- Impact and vibration resistant
- Positive shrinkage compensation

PRODUCT INFORMATION

Composition	Cement, micro silica, selected fillers, aggregates and special additives
Packaging	25 Kg bags
Appearance / Colour	Grey Powder
Shelf life	12 months from date of production if stored properly in original, unopened and undamaged sealed packaging
Storage conditions	Store dry at 4–35 °C Protect from moisture. If damp, discard material.
Bulk Density	~1.25 kg/L

TECHNICAL INFORMATION

Compressive Strength	3 Hrs	1 Days	7 Days	28 Days	(ASTM C 109)
	24.1 N/mm ²	31.8 N/mm ²	57.0 N/mm ²	64.1 N/mm ²	
	50mm cube, Ambient Temperature 23° C				
Expansion	> 0,1 % after 24 hours.				(ASTM C 1090)

APPLICATION INFORMATION

Mixing Ratio	Water: Powder = 0.17 by weight (4.2 L water per 25 kg bag).
Fresh Mortar Density	2.1~2.3 kg/L
Layer Thickness	10 mm min. / 100 mm max.
Flowability	over 150 % (ASTM C 939)
Ambient Air Temperature	+5°C min/+40 °C max
Substrate Temperature	+5°C min/+40 °C max
Pot Life	~ 20 minutes at +23°C

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

- The substrate should be prepared by suitable mechanical preparation techniques such as high pressure water jetting, breakers, blast cleaning, scrabbles, etc.
- The concrete substrates should be pre-soaked with clean water continuously for 2 - 6 hours to ensure a saturated surface dry condition throughout the operation.
- Immediately before pouring remove all excess or standing water from within any formwork.
- Surfaces must be sound, clean, free from ice, oils, grease, standing water and any loose or friable particles and any other surface contaminants.
- The concrete "pull off" (tensile) strength should be > 1.0 MPa.

MIXING

Drill and Spiral Mixer

Pour the correct amount of water (4.0~4.5L / 25kg bag) into a suitable clean mixing container. While stirring slowly with drill and spiral mixer (400~500 rpm), add the complete bag of SikaGrout®-300 RH into the water. Mix continuously for 3 minutes to achieve a uniform and lump free smooth consistency. Do not add more water than the maximum specified.

Grout mixer

SikaGrout®-300 RH must be mixed using suitable grout mixing equipment combined with agitator for continuous large volume mixing. 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.

APPLICATION

Pre-wetting

The prepared concrete substrate must be thoroughly saturated with clean water for a recommended 6 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. To make optimum use of the products expansion properties, apply the grout as quickly as possible (within max. 15 minutes)

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.

FURTHER INFORMATION

- Use SikaGrout®-300 RH for grouting only; do not use SikaGrout®-300 RH for patch repair work etc.
- Ensure formwork is secure and watertight to prevent movement and leaking during placing and curing.
- Use chilled water for mixing in case of high ambient temperature.
- Use hot water for mixing in case of very low ambient temperature.
- Depending on requirements and site conditions the addition of dry, single size and clean aggregates is possible. Trials are recommended to confirm suitability of aggregates to be used.
- For large bedding holes and higher gaps duly washed coarse aggregates of size 10mm down may be mixed with SikaGrout®-300 RH in the proportion of grout: aggregate= 2:1 (by weight).
- For additional technical information on SikaGrout®-300 RH or other grouting materials contact the technical services department.

IMPORTANT CONSIDERATIONS

- Not to be used for open repair works or overlay in unconfined spaces.
- 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.
- Pour or pump from one side only.
- Do not add additional water during the surface finishing as this will cause discoloration and cracking.
- Avoid exposure during rainfall and prior to final set.

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.

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 the exact product data and uses.

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.

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.

Sika Korea Ltd.

135 gil 16, Nonhyun-ro
Gangnam-ku, Seoul, Korea
Tel : +82 2 6912 1500
Fax: +82 2 6912 1555
web: <http://kor.sika.com>



Product Data Sheet
SikaGrout®-300 RH
January 2019, Version 01.01
020201010050000009

SikaGrout-300RH-en-KR-(01-2019)-1-1.pdf