

PRODUCT DATA SHEET

SikaInject®-865

Fast Setting Micro-Fine Portland Cement for Rock and Soil Injection

DESCRIPTION

SikaInject®-865 is a well-graded cement with fast setting-time, milled from pure Portland cement clinker with Blaine value ~650 m²/kg

USES

SikaInject®-865 may only be used by experienced professionals.

- Pre-excavation grouting in underground structures
- Post injection
- Water ingress reduction
- Ground stabilization
- Contact injection

CHARACTERISTICS / ADVANTAGES

- Initial and final setting faster than standard micro-fine cements
- Small particle size = very good penetration into fine joints, fissures and pores
- Providing a water-tight grouted rock or soil mass
- Increases the productivity in injection operations
- Short open-time = reduction of waiting-time until next excavation round to a minimum

PRODUCT INFORMATION

Chemical Base	Fineness (Blaine) > 625 m ² /kg Particle size distribution: <40 micron 100 % <30 micron 99 % <20 micron 97 % <15 micron 93 % <10 micron 80 % < 5 micron 50 % < 2 micron 23 % d ₉₅ 16 microns d ₅₀ 5 microns d ₂₅ 2 microns
Packaging	20 kg bags 1000 kg big-bags
Shelf Life	9 months when stored in original closed bags in ventilated dry areas
Storage Conditions	Ventilated dry areas, closed original bags

APPLICATION INFORMATION

Flowability	Injection grout properties indicated below, relates to a mix containing a High-Range-Water-Reducing-Admixture (e.g. 1.5% Sika Viscocrete): <ul style="list-style-type: none">▪ Water/cement ratio 1.0▪ Mud balance 1.48 – 1.50 kg/l▪ Flow cone 32 – 34 s▪ Bleeding maximum 2 %
Pot Life	The mix should be kept under constant agitation prior to injection. Do not keep the grout in the agitator longer than 30 – 40 minutes.
Initial Set Time	60 min - 120 min (Vicat needle up to 6 mm +/- 3 mm, over ground)
Final Set Time	120 min - 150 min (Penetration by Vicat needle, 1 mm) Setting times at 1:1 w/c ratio (by weight), 20°C
Finishing Time	SikalInject®-865 will have set sufficiently after 2 - 2½ hours to allow drilling for control or blast holes

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.

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

APPLICATION INSTRUCTIONS

MIXING

Use SikalInject®-865 always with 0.6 % – 2 % High Range Water Reducing Admixture (Sika Viscocrete), related to cement weight. To prove compatibility, it is recommended to do a pretest in regards of bleeding/segregation. W/C ratio (weight) should be 0.6 - 1.0.

- Fill mixer with water
- Add cement while running mixer
- Mix for 2 min more
- Add the High Range Water Reducing Admixture and mix 1 min
- Transfer to agitator

Note:

- Use efficient mixer; colloidal mixers with >1500 rpm give best results
- Do not over-mix
- Mixing longer than recommended may cause temperature-increase and grout set in pump and/or hoses

APPLICATION

- Typically high-pressure piston pumps are used to pump the suspension into the rock
- Inject grout within 30 - 40 minutes after mixing to ensure that it keeps spreading into fissures
- Longer open times can be achieved by using SikaTard hydration-control stabilizer-admixture
- For much longer open times use SikalInject®-865 SR, available upon special request

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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October 2024, Version 01.02
020707050020000012

SikaInject-865-en-HK-(10-2024)-1-2.pdf