

PRODUCT DATA SHEET

Sika® ViscoCrete®-510 PK

POWDER TYPE HIGH-PERFORMANCE SUPERPLASTICIZER / HRWR

DESCRIPTION

Sika® ViscoCrete®-510 PK is a high-performance superplasticizer and water reducer in powder form based on Sika® ViscoCrete® polycarboxylate polymer technology. It's diluted version for the reduction of sensitivity in mixing process.

USES

Sika® ViscoCrete®-510 PK is formulated for use in dry mortar or dry concrete applications and can be used with a wide range of binder systems:

- Common cements (CEM I - CEM V)
- Ternary binder systems
- Calcium sulfate (gypsum) based binders, including beta-hemihydrate, alpha-hemihydrate and anhydrite

Sika® ViscoCrete®-510 PK is suitable for a wide range of mortar applications, including:

- Calcium sulfate and cement-based screeds and self-levelling screeds and underlayments
- Non-shrink grouts, anchor grouts and injection mortars, repair mortars, tile adhesives
- Floor screeds, self-levelling screeds and underlayments
- Building plaster, render, stucco, bonding/filling compound, molding plaster, dental & medical plaster
- self-levelling and self-compacting concretes with low w/c-ratio

CHARACTERISTICS / ADVANTAGES

Sika® ViscoCrete®-510 PK is adsorbed onto the surface of the binder particles and due to repulsive forces from the effect known as steric hindrance, the solid binder particles are very effectively dispersed in the mix.

The benefits of Sika® ViscoCrete®-510 PK include, but are not limited to the following:

- High water reduction at low dosage, resulting in shorter drying times, higher densities and strengths
- Greatly reduced processing and compaction efforts due to very good flow and self-levelling behaviour
- Particularly high performance in systems with pH-value > 11.5
- Reduced mixing times due to fast adsorption
- High initial flow, long slump life and workability time
- Improved shrinkage and creep behaviour
- Low influence on hydration, resulting in low activator/accelerator consumption
- Compatible with cements with high C₃A, sulfate and alkali content
- Compatible with other additives (e.g. fruit acids, such as citric acid)
- Free of formaldehyde and ammonia

PRODUCT INFORMATION

Composition	Modified polycarboxylates
Packaging	20 kg bag
Appearance / Colour	yellowish powder
Shelf life	12 months shelf life from date of production if stored properly in undamaged, unopened, original sealed packaging.
Storage conditions	Dry storage at temperatures up to 40 °C. Protect from direct sunlight.
Bulk Density	0.9 ± 0.1 g/cm ³

Total Chloride Ion Content ≤ 0.1 %

Equivalent Sodium Oxide ≤ 2.0 %

TECHNICAL INFORMATION

Specific Advice

Dosage rate varies depending on the application and due to variations in dry-mix composition. At high dosage bleeding and/or segregation may occur as well as retardation of setting.

Note:

- Preliminary testing is required to determine the exact dosage for specific conditions. Please contact Sika technical service for more information and advice.

APPLICATION INFORMATION

Recommended Dosage

Dosage range for typical applications: 0.1 - 1.2 % by weight of binder.

Compatibility

Sika® ViscoCrete®-510 PK may be combined with many other Sika products as well as with most commonly used activators/accelerators, retarders, re-dispersible powders, stabilizers and other additives used in dry-mix applications. In order to achieve an optimal effect with respect to initial liquefaction and slump keeping, the combination with another Sika ViscoCrete Powder is possible.

Note:

- Always conduct trials before combining products in specific mixes and contact Sika technical service for more information and advice concerning specific combinations with other products.

Dispensing

Sika® ViscoCrete®-510 PK is added to the dry mix. For optimum utilisation of the high water reduction capability, the mortar must be mixed intensively. The wet mixing time depends on the mixer.

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.

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>



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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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