

PRODUCT DATA SHEET

Sika® ViscoCrete®-5010 SC PH

SUPERPLASTICIZER FOR CONVENTIONAL AND SPRAYED CONCRETE WITH LONG WORKABILITY RETENTION PROPERTIES

DESCRIPTION

Sika® ViscoCrete®-5010 SC PH is a highly effective superplasticizer with set retarding, long slump retention and mix stabilizing properties.

USES

In shotcrete mixes, Sika® ViscoCrete®-5010 SC PH is used in wet spray technology in combination with various Sigunit® accelerators. In conventional concrete mixes, Sika® ViscoCrete®-5010 SC PH is used where long slump retention is required in difficult situations like hot climates or poorly shaped coarse and fine aggregates etc.

Sika® ViscoCrete®-5010 SC PH can be used with:

- Fine aggregates and sand
- Crush rock fine / quarry dust
- Shotcrete and conventional mixes containing Silica Fume or Metakaolin

With the use of Sika® ViscoCrete®-5010 SC PH, shotcrete and conventional concrete is retarded and stabilized and can be kept without loss of workability in a transit mixer for more than 3 hours to suit long transit times and site conditions in difficult and remote sites like long tunnels, mines etc.

Sika® ViscoCrete®-5010 SC PH improved shotcrete and conventional concrete, has a long open time and workability, resulting in reduced pump pressure. The combination of Sika® ViscoCrete®-5010 SC PH and Sigunit® accelerators greatly increase the early strength development of the concrete.

CHARACTERISTICS / ADVANTAGES

Sika® ViscoCrete®-5010 SC PH strongly plasticizes fresh concrete and allows for a high reduction of the water-cement ratio without negatively influencing the workability of the original concrete mix design. At the same time, cement hydration is retarded for a certain time. Depending on the dosage, fresh concrete remains stable and retarded for a pre-determined time, thus maintaining its workability. Stabilised shotcrete can then be accelerated with Sigunit® accelerators at any time without loss of quality. The retardation and retention of workability effects are also strongly dependent on the:

- Temperature of the fresh concrete
- Ambient temperature
- W/C ratio
- Type of cement
- Cement content

PRODUCT INFORMATION

Chemical Base	Polymer base
Packaging	210 Liter Drum 1000 Liter Bulk
Shelf Life	12 months from the date of production.
Storage Conditions	Store properly in undamaged, unopened, original sealed packaging, in dry conditions at temperatures between +5°C and +35°C. Protect from direct sunlight.
Appearance / Colour	Brown liquid

APPLICATION INFORMATION

Recommended Dosage

0.7–2.0 % by weight of total cementitious binder, depend on the required concrete consistency and working time

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.

LIMITATIONS

Sika® ViscoCrete®-5010 SC PH is a product for use in civil engineering and tunnelling. Please consult our technical service to ensure correct use of the product.

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.

APPLICATION INSTRUCTIONS

DISPENSING

Sika® ViscoCrete®-5010 SC PH is added to the concrete at the batching plant together with the gauging water. For wet spray concrete a soft concrete consistency (K3) is required. Always make use of the potential water reduction as a result of the plasticizing effect. Batching plant mixing time must be at least 60 seconds for wet plant and 3 minutes for dry plant. Concrete produced with Sika® ViscoCrete®-5010 SC PH should be taken by transit mixer to the point of discharge. During shotcrete applications, Sigunit® is added at the spray nozzle to initiate fast setting. The standard rules of good concreting practice (in production as well as in placing) must always be observed when using Sika® ViscoCrete®-5010 SC PH.

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.

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