

PRODUCT DATA SHEET

Sika® ViscoCrete®-3100 P2

HIGH-EFFICIENT SUPERPLASTICIZER

DESCRIPTION

Sika® ViscoCrete®-3100 P2 is the latest development of superplasticizer for concrete. It is also intended for self-compacting concrete depending on the dose rate. It meets the requirements for high range water reducing superplasticizers according to ASTM C 494 Type G.

USES

Sika® ViscoCrete®-3100 P2 is a unique multipurpose superplasticizer that is particularly suitable for the production of ready-mix concrete. Additionally, it provides high water reduction and improved fresh concrete characteristics.

With its outstanding cost / performance, Sika® ViscoCrete®-3100 P2 is used for the following:

- A wide range of applications where excellent workability is requested
- Concrete with high water reduction
- High efficient concrete applications
- Variable use in different concrete systems with different raw materials
- Self-compacting concrete

CHARACTERISTICS / ADVANTAGES

Sika® ViscoCrete®-3100 P2 is a powerful superplasticizer based on advanced technology which gives the following advantages:

- Strong water reduction, resulting in high density, high strength and reduced permeability
- Less sensitive against variations in aggregates and / or different cement types
- High efficiency even at low dosage rates
- Extended workability in conjunction with subsequent strength development
- Superior plasticizing effect, resulting in improved flow, placing and compaction
- Reduced shrinkage during curing and reduced creep when hardened
- Suitable for the production of self-compacting concrete
- Provides many opportunities for cost improvement e.g.:
 - Cement replacement / reduction
 - More economic design mix

Sika® ViscoCrete®-3100 P2 does not contain chlorides or any other ingredients which promote the corrosion of steel. It is therefore suitable for use in reinforced and pre-stressed concrete structures.

PRODUCT INFORMATION

Chemical Base	Polycarboxylate ether
Packaging	210 L drum and 1000 L bulk
Appearance / Colour	Clear to slight yellowish Liquid
Shelf Life	12 months from date of production if stored properly in undamaged, unopened, original sealed packaging.
Storage Conditions	Store in dry conditions at temperatures between +5° C and +30° C. Protect from directly sunlight.
Specific Gravity	1.08 ± 0.02 kg/L
Recommended Dosage	0.8% - 2.0% by weight of total cementitious binder

Dispensing

Sika® ViscoCrete®-3100 P2 is added to the gauging water or added with it into the concrete mixer. To take advantage of the high water reduction, a wet mixing time, which is depending on the mixing conditions and mixer performance, of at least 60 seconds is recommended. To avoid excess water in the concrete, the final dosage must begin only after 2/3 of the wet mixing time.

Restrictions

When using Sika® ViscoCrete®-3100 P2 a suitable mix design has to be taken into account and local material sources shall be subjected to trial. Sika® ViscoCrete®-3100 P2 shall not be added to dry cement. Excessive water addition or overdosing may cause bleeding or segregation.

APPLICATION INSTRUCTIONS

The standard rules of good concreting practice, concerning production and placing, are to be followed. Laboratory trials shall be carried out before concreting on site, especially when using a new mix design or producing new concrete components. Fresh concrete must be cured properly and curing applied as early as possible.

FURTHER DOCUMENTS

Clean all tools and application equipment with water immediately after use. Hardened / cured material can only be removed mechanically.

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.

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.

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.

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Product Data Sheet
Sika® ViscoCrete®-3100 P2
March 2019, Version 01.01
021301011000001067

SikaViscoCrete-3100P2-en-PH-(03-2019)-1-1.pdf