

PRODUCT DATA SHEET

Sika® ViscoCrete®-3021 Ease

(formerly MasterEase® 3021)

HIGH RANGE WATER REDUCER/ SUPERPLASTICISER WITH ADVANCED RHEOLOGICAL PROPERTIES.

DESCRIPTION

Sika® ViscoCrete®-3021 Ease is an innovative latest generation superplasticizer and is specially engineered for ready-mix concrete. The objective of the development of the unique polymer was to take the characteristics of traditional polycarboxylate ether (PCE) admixtures but to modify the structure of the polymer to give enhanced rheology and robustness to the concrete.

Sika® ViscoCrete®-3021 Ease is free chloride content and conforms to ASTM C494 Type G.

USES

Sika® ViscoCrete®-3021 Ease is mainly suitable for the manufacture of concrete for RMC and precast batching plants.

Sika® ViscoCrete®-3021 Ease excels by its extremely high-water reduction capacity, providing good flow ability while retaining optimal cohesion of the mix.

Sika® ViscoCrete®-3021 Ease is used for the following types of concrete:

- High strength/ ultra-high strength concrete.
- High early strength for concrete shafts.
- Bridges and cantilever.
- Slender components with dense reinforcement.
- All consistencies, including Self-Compacting Concrete (SCC).

PRODUCT INFORMATION

Packaging	200/1000 litres.
Shelf life	12 months if stored properly in original unopened packaging.
Storage conditions	Stored in dry conditions, protected from direct sunlight and at temperatures between +5 °C and +30 °C.

CHARACTERISTICS / ADVANTAGES

Sika® ViscoCrete®-3021 Ease combines different modes of actions. By adsorption of Sika® ViscoCrete®-3021 Ease on the surface of binder particles is provided by a flexible chemical bond which does not impede the flow of concrete and keep them apart while the hydration is in progress, Sika® ViscoCrete®-3021 Ease effects the following concrete properties:

- Decreases the viscosity of the concrete at constant W/C ratio.
- Extremely high-water reduction without affecting the viscosity.
- Producing very soft consistency and suitable for long distance pumping.
- High flowability (considerably reduced placing and compacting work).
- Workability retention is over 120 minutes without set retardation (still depends on admixture dosage, cement type, temperature).
- Highly improved waterproofness.
- Improved creep and shrinkage resistance characteristics.
- This innovation significantly improves rheological behavior of concretes treated by Sika® ViscoCrete®-3021 Ease, they have a low yield stress, low viscosity with additional feature for long workability retention.

TECHNICAL INFORMATION

Concreting Guidance

Concrete placing: With the use of Sika® ViscoCrete®-3021 Ease, concrete of highest quality is being produced, however state of the art concrete technology, such as mixing, placing vibrating and curing must be respected and applied.

Curing: Effective measures for concrete curing must be followed.

APPLICATION INFORMATION

Recommended Dosage

Typical 0.8 to 2.0 ltr/100 kgs of cement/binder.

Compatibility

Sika® ViscoCrete®-3021 Ease may be combined with all SikaPlast®, Sika® Aer, Sika® Pump, Sikacrete® PP1 products, but must be added separately to the mix and not pre-mixed prior its addition.

Sika® ViscoCrete®-3021 Ease is compatible with all Portland Cement types.

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.

IMPORTANT CONSIDERATION

Overdosing will result in increased workability and setting time of the Concrete, however, provided that curing is effective, ultimate concrete strength and properties will not be affected.

Accurate dispensing equipment can be supplied by Sika Limited (Vietnam).

Use an appropriate concrete mixer and do not mix by hand.

Trial mixes are recommended to establish exact dosage rates required to suit individual requirements. Please contact Sika Technical Department for further assistance.

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

DISPENSING

Sika® ViscoCrete®-3021 Ease is added to the gauging water prior to its addition to the dry mix or added separately to the wetted concrete mix.

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For optimum utilization of the ultra-high range water reducer, we recommend a minimum wet mixing time of 60 seconds.

When adding the balance of the batching water to adjust concrete consistency this should be done after a minimum of 2/3 of the wet mixing time to avoid surplus water in the concrete.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product 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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