

Sika® ViscoCrete® G-2

High range water reducing/superplasticising admixture

Product Description

Sika® ViscoCrete® G-2 is a high-performance superplasticiser and water reducer based on Sika® ViscoCrete® polycarboxylate polymer technology.

Uses

Sika® ViscoCrete® G-2 is formulated for application in systems with high calcium sulfate content or pure gypsum binders.

Sika® ViscoCrete® G-2 is mainly used for the following applications:

- Gypsum boards (also: plasterboards, wallboards), partition panels, ceiling tiles
- Gypsum fibreboards, building elements, blocks
- Building plaster, render, stucco, bonding/filling compound, molding plaster, dental & medical plaster

Characteristics / Advantages

Sika® ViscoCrete®, Sika's polycarboxylate technology, works based on a combination of electrostatic forces and steric repulsion effects. Thus, solid particles can be effectively dispersed.

The benefits of Sika® ViscoCrete® G-2 include, but are not limited to the following:

- High water reduction
- Excellent flowability
- Rapid adsorption
- Very low retardation
- Compatible with other additives
- Free of formaldehyde (unlike SNF/SMF) and ammonia

Especially when utilised for gypsum board production the use of Sika® ViscoCrete® G-2 may result in:

- Short mixing time
- Reduced placing- and compacting efforts
- Shorter drying time
- Improved shrinkage and creep behaviour
- Higher strength adjustable
- Reduced water consumption and less waste water
- Reduced energy consumption & CO₂-emission
- Increased production rate and thus enlarged capacity
- Overall reduction in production costs

Tests

Approval / Standards

Sika® ViscoCrete® G-2 is tested according to Sika® internal testing procedure



Product Data

Form

Appearance / Colour Light brown / nearly colourless liquid

Packaging 1000 Kg IBC and Bulk Tanker

Storage

Storage Conditions / Shelf Life 12 months from date of production if stored properly in undamaged containers, in dry conditions at temperatures between +5°C and +25°C.
Protect from direct sunlight and frost.

Technical Data

Chemical Base Aqueous solution of modified polycarboxylates

Density 1.10 Kg/Litre

pH Value 4.5 ± 1.0

Conventional Dry Material Content 40.0 ± 1.0 M.-%

Total Chloride Ion Content % w/w <0.1%

Equivalent Sodium Oxide as % Na₂O w/w <2.0 %

System Information

Application Details

Consumption / Dosage Dosage range for typical applications: 0.05- 0.8 % by weight of binder.

Differences in calcium sulfate binder type, raw material sources, calcining methods, age and storage conditions of the binder and other individual parameters at the plant and/or job site can influence the superplasticiser consumption of gypsum binders. 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 your specific conditions. Please contact our technical service for more information and assistance.

Application Conditions / Limitations

Compatibility Sika® ViscoCrete® G-2 may be combined with many other Sika products as well as with most commonly used gypsum additives, like superplasticiser, stabilizer and defoamer. In combination i.e. with Sika® Retardan® improvements in flowability and setting-time adjustment may be achieved.

Important: Always conduct trials before combining products in specific mixes and contact our Technical Service Department for information and advice about any specific combinations.

Application Instructions

Dispensing	Sika® ViscoCrete® G-2 is added to the gauging water.
Cleaning of Tools	Clean all tools and application equipment with water immediately after use. Hardened / cured material can only be removed mechanically.
Notes on Application / Limitations	<p>When using Sika® ViscoCrete® G-2 a suitable mix design has to be taken into account and local material sources shall be trialled.</p> <p>Support from our Technical Service Department is recommended.</p> <p>Frost: If frozen and / or if precipitation has occurred, Sika® ViscoCrete® G-2 may be used after thawing slowly at room temperature followed by intensive remixing.</p>
Value Base	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.
Health and Safety Information	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 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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