

## PRODUCT DATA SHEET

# Sika® ViscoCrete®-454 Ultra

POWERFUL SUPERPLASTICIZING CONCRETE ADMIXTURE WITH WORKABILITY  
RETENTION PROPERTIES



### DESCRIPTION

Sika® ViscoCrete®-454 Ultra is 3rd generation powerful superplasticizer based on the polycarboxylate polymer technology. It offers high initial workability in the mix and slump maintenance, even under demanding conditions.

### USES

Sika® ViscoCrete®-454 Ultra is suitable for ready-mix and site batched high quality concrete. Moreover, it offers very high water reduction, high initial slump and good slump retention. It is especially suitable:

- For concrete with demands for high initial workability and maintenance of it
- For high categories of site-batched and ready-mix concrete
- In cases of applications under high temperatures and for high distance concrete transportations and/ or in cases of need for workability maintenance
- For shotcrete

### CHARACTERISTICS / ADVANTAGES

Sika® ViscoCrete®-454 Ultra is a very powerful superplasticizer which offers:

- Exceptional water reduction in the mix, producing thus dense and high strength concrete
- Plastic and easy to handle concrete mixes, resulting in better casting and compaction
- Good flow ability maintenance in cases of high distance transportations and under high temperatures
- High range reduction of water permeability and carbonation
- Sika® ViscoCrete®-454 Ultra does not contain chlorides and is therefore suitable for prestressed and reinforced concrete

### APPROVALS / CERTIFICATES

CE-marking and Declaration of Performance as High range water reducing / superplasticizing admixture (Tables 3.1 & 3.2) and Set retarding / high range water reducing / super plasticizing admixture (Tables 11.1 & 11.2) according to EN 934-2:2009, based on certificate of factory production control issued by notified factory production control certification body and type testing.

### PRODUCT INFORMATION

<b>Composition</b>	Aqueous solution of modified 3rd generation polycarboxylate polymers
<b>Packaging</b>	IBC, drums, containers. Bulk supply on demand.
<b>Appearance / Colour</b>	Liquid, brown
<b>Shelf life</b>	8 months from date of production
<b>Storage conditions</b>	Store properly in undamaged, unopened, original sealed packaging, in dry conditions at temperatures between +5°C and +35°C. Protect from direct sunlight and frost.
<b>Density</b>	~ 1,05 kg/l (at +20 °C)
<b>pH-Value</b>	3,5 – 5,5 (at +20 °C)

## TECHNICAL INFORMATION

### Concreting Guidance

The standard rules of good concreting practice, concerning production as well as placing, are to be followed. Refer to relevant standards. Fresh concrete must be cured properly.

## APPLICATION INFORMATION

### Recommended Dosage

0,4 – 1,6% by weight of cement

### Compatibility

Sika® ViscoCrete®-454 Ultra can be combined with the following Sika products:

- Sika® Plastiment® series
- Sika® WT-140 L/Sika® WT-200 P
- Sika® Stabilizer-4R
- Sika® Visco I-100
- Sikafume® HR-E / Sikacrete® AR
- Sikacrete® UCS
- Sika-Aer® Fine
- Sika® Ferrogard-901 S
- Sika® Sigunit® shotcrete accelerators

Trials are recommended before combining products.

### Dispensing

Sika® ViscoCrete®-454 Ultra is added to the gauging water at the plant or added on-site into the concrete mixer.

### Restrictions

- When using Sika® ViscoCrete®-454 Ultra a suitable concrete mix should be designed and local raw material sources should be tested.
- Sika® ViscoCrete®-454 Ultra should not be added to dry cement.
- Sika® ViscoCrete®-454 Ultra should be added with the mixing water or introduced at the end of the mixing process.
- Before application, suitability tests must be performed.

## 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) con-

taining 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 re-

serves 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.

**Sika Hellas ABEE**

15 Protomagias Str.  
14568 Kryoneri  
Attica-Greece  
Tel.: +30 210 8160 600  
Fax: +30 210 8160 606  
www.sika.gr | sika@gr.sika.com



**Product Data Sheet**

Sika® ViscoCrete®-454 Ultra  
October 2019, Version 01.01  
021301011000003511

SikaViscoCrete-454Ultra-en-GR-(10-2019)-1-1.pdf

