

# PRODUCT DATA SHEET

## SikaPlast®-470

### CONCRETE ADMIXTURE FOR HIGH FLOW / SELF COMPACTING CONCRETE

#### DESCRIPTION

SikaPlast®-470 is a third generation superplasticiser for concrete and mortar. It is particularly developed for the production of high flow concrete with exceptional flow retention properties and significant reduction in bleeding and segregation.

#### USES

SikaPlast®-470 facilitates extreme water reduction, excellent flowability with optimal cohesion and strong self-compacting behaviour.

SikaPlast®-470 is used for the following types of concrete:

- High flow concrete
- Self-compacting concrete (S.C.C.)
- Concrete with very high water reduction (up to 30 %)
- High strength concrete

Do not use viscoconcrete / viscoflow series combined with sikament series.

To produce flowing and / or self-compacting concrete, special concrete mix design is required.

Please consult to our Technical Service Department.

#### CHARACTERISTICS / ADVANTAGES

SikaPlast®-470 acts by surface adsorption on the cement particles producing a sterical separation effect. Concrete produced with Sika ViscoFlow®-3217 exhibits the following properties:

- Excellent flowability (resulting in highly reduced placing and compacting efforts)
- Strong self-compacting behaviour
- Extremely high water reduction (resulting in high density and strengths)
- Improved shrinkage and creep behaviour
- Increased carbonation resistance of the concrete
- Improved finish
- Reduce tendency to bleeding and segregation
- Increased watertightness for concrete

SikaPlast®-470 does not contain chlorides or other ingredients which promotes steel corrosion. Therefore, it may be used without restriction for reinforced and pre-stressed concrete construction.

SikaPlast®-470 gives the concrete extended workability and depending on the mix design and the quality of materials used, self-compacting properties can be maintained for more than 1 hour at 30 °C.

#### PRODUCT INFORMATION

<b>Composition</b>	Aqueous solution of modified polycarboxylate copolymers
<b>Packaging</b>	200 L drums 1 000 L bulk deliveries
<b>Appearance / Colour</b>	Liquid / Brownish
<b>Shelf life</b>	12 months from date of production if stored properly in undamaged, unopened, original sealed packaging
<b>Storage conditions</b>	Stored in dry conditions at temperatures between +5 °C and +30 °C. Protect from direct sunlight and frost.

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Density	1.08 ± 0.01 kg/L (at +20 °C)
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Total Chloride Ion Content	< 0.1 % w/w
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## TECHNICAL INFORMATION

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**Concreting Guidance** The standard rules of good concreting practice, concerning production and placing, are to be followed. Laboratory trials before concreting on site are strongly recommended when using a mix design or producing new concrete components. Fresh concrete must be cured properly and as early as possible.

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## APPLICATION INFORMATION

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<b>Recommended Dosage</b>	For soft plastic concrete	0.2 - 0.6 % by weight of binder
	For flowing and self compacting concrete (S.C.C)	0.6 – 2.0 % by weight of binder

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**Compatibility** SikaPlast®-470 may be combined with the following products:

- Plastiment® P121R
- Plastiment® VZ
- Sika®Fume
- SikaFibre®

Do not use viscocrete / viscoflow series combined with sikament series. To produce flowing and / or self-compacting concrete, special concrete mix design is required. Please consult to our Technical Service Department.

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## APPLICATION INSTRUCTIONS

### DISPENSING

SikaPlast®-470 is added to the gauging water or simultaneously poured with it into the concrete mixer. For optimum utilization of its high water reduction property, we recommend thorough mixing at a minimal wet mixing time of 60 seconds.

The addition of the remaining gauging water (to fine tune concrete consistency) may only be started after twothirds of the wet mixing time, to avoid surplus water in the concrete.

### BASIS OF PRODUCT DATA

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

## LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for the exact product data and uses.

## 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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