

## PRODUCT DATA SHEET

# Sikament® FF

## HIGH RANGE WATER REDUCER / SUPERPLASTICIZER

## **DESCRIPTION**

Sikament® FF is a high range water reducer / superplasticizer for concrete and mortar.

## **USES**

Sikament® FF is particularly suitable for early-strength concretes where the workability time of more than 40 minutes isn't necessary. This is particularly the case for precast production and on construction sites with special applications.

Sikament® FF is particularly suitable where concrete has to be in regular use in a short amount of time e.g. airfield repair, road and railways bridge sections.

## **CHARACTERISTICS / ADVANTAGES**

Sikament® FF works based on a combination of electrostatic inter particle repulsion. Thus, solid particles can be effectively dispersed and a high level of fluidity can be reached with less water.

Sikament® FF Does not contain any chlorides. It can therefore be used without risk for steel and prestressed concrete.

With a sufficiently high dosage of Sikament® FF a water reduction of up to 20% is possible.

## **APPROVALS / CERTIFICATES**

Complies with ASTM C 494-81 Type A  $\&~\mathrm{F}$ 

## PRODUCT INFORMATION

Composition	Melamine formaldehyde condensate
Packaging	200 L/drum, 1,000 L/tote
Appearance / Colour	Brownish liquid
Shelf life	12 months shelf life from date of production if stored properly in undamaged, unopened, original sealed packaging.
Storage conditions	Storage at temperatures between 10 °C and 30 °C. Protect from direct sunlight, frost and contamination.
Density	~1.20 ± 0.01 kg/L (at +25°C)
pH-Value	~10
TECHNICAL INFORMA	TION

Concreting Guidance	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.

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### APPLICATION INFORMATION

Recommended Dosage	0.8–3.0 % by weight of cement.
Compatibility	Sikament® FF may be combined with many other Sika products. Combination with other admixtures may affect the amount of air-entrained into the concrete.  Sikament® FF is compatible with all types of Portland Cement, including S.R.C.type and Hydraulic Cement.  Note: Always conduct trials before combining products in specific mixes and contact Sika® technical service for more information and advice.
Dispensing	Sikament® FF is added to the gauging water or added with it into the concrete mixer. To take advantage of the workability enhancing ability, 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	Sikament® FF shall not be added to dry cement.

#### IMPORTANT CONSIDERATIONS

- When using Sikament® FF a suitable mix design has to be taken into account and local material sources shall be tested.
- Excessive water addition or overdosing may cause bleeding or segregation.
- Frost: If frozen and / or if precipitation has occurred, Sikament® FF may be used after thawing slowly at room temperature followed by intensive remixing.

#### **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 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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