

## PRODUCT DATA SHEET

# Sikament® S1

SIKAMENT -S1 IS HIGHLY EFFECTIVE DUAL ACTION LIQUID SUPER PLASTICIZER FOR THE PRODUCTION OF FREE FLOWING CONCRETE OR AS A SUBSTANTIAL WATER-REDUCING AGENT FOR PROMOTING HIGH EARLY AND ULTIMATE STRENGTHS.

### DESCRIPTION

Sikament® -S1 is highly effective dual action liquid super plasticizer for the production of free flowing concrete or as a substantial water-reducing agent for promoting high early and ultimate strengths.

### USES

Sikament® -S1 is used as a super plasticizer in the production of free flowing concrete, Such as:

- . Slabs and foundations.
- . Walls, columns and piers.
- . Slender components with densely packed reinforcement.
- . Textured surface finishes

It is also used as a water-reducing agent leading to high early strength concrete such as:

- . Precast concrete elements.
- . Prestressed concrete.
- . Bridges and cantilever structures.
- . Concrete where formwork must be removed quickly or early loading applied.

### CHARACTERISTICS / ADVANTAGES

Sikament® -S1 provides the following properties:

As a Super Plasticizer:

Workability is greatly improved. Increased place components with densely packed reinforcement. Easy placing, less vibrating. Normal set without retardation.

Significantly reduces the risk of segregation. Improved water tightness.

As a Water Reducer:

Up to 20% water reduction. 16 hours compressive strengths increased by up to 100%. 28 days strengths improved by 40%.

Sikament® -S1 is chloride free-does not attack the reinforcement

### APPROVALS / CERTIFICATES

It complies with ASTM C494 Type F and B.S.5075 part 3.

## PRODUCT INFORMATION

<b>Composition</b>	Naphthalene Formaldehyde Sulphonate.
<b>Packaging</b>	5 and 20 kg pails 220 kg drums Bulk Tanks packing available upon request
<b>Appearance / Colour</b>	Brown liquid
<b>Shelf life</b>	12 months from date of production if stored properly in undamaged and unopened original sealed packing.
<b>Storage conditions</b>	Store in dry conditions, protected from direct sunlight and frost.
<b>Density</b>	(at 20°C) 1.200 kg/l (ASTM C-494)

## APPLICATION INFORMATION

<b>Recommended Dosage</b>	0.6 – 2.8 % by weight of cement, depending on desired workability and strength, however, it is advisable to carry out trial mixes to establish the correct dosage rate required.
<b>Compatibility</b>	Sikament® -S1 is compatible with all types of Portland cement including S.R.C. and H.B.F. cements and may perform differently with variations in cement producers and cement chemical composition. Accidental overdosing of Sikament® -S1 causes an extension of the initial setting time, however, no excessive amount of additional air will be entrained.
<b>Dispensing</b>	<ul style="list-style-type: none"><li>▪ Sikament® -S1 can be added to the mixing water before addition to the aggregates or directly to the freshly mixed concrete (the plasticizing effect is more pronounced).</li><li>▪ For Ready-mix concrete, Sikament® -S1 is added to the concrete immediately before discharge and after further mixing has taken place for three minutes.</li></ul>

## 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

### ▪ Safety Precautions

Accidental splashes to the skin must be washed off with water and soap.

Accidental splashes to the eyes or mucous membrane must be rinsed with clean warm water. Seek medical attention.

### ▪ Ecology

Residues of material must be removed according to local regulations.

Fully cured material can be disposed of as household waste under agreement with the responsible local authorities.

### ▪ Transport

Non-hazardous

### ▪ Toxicity

Non-Toxic under relevant health and safety codes.

## 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. It may be necessary to adapt the above disclaimer to specific local laws and regula-

tions. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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