

## PRODUCT DATA SHEET

# Sikament<sup>®</sup>-100 LK

### HIGH RANGE WATER REDUCER / SUPERPLASTICIZING ADMIXTURE FOR CONCRETE

#### DESCRIPTION

Sikament<sup>®</sup>-100 LK is a highly effective dual action liquid superplasticiser for the production of high slump concrete or as a substantial water reducing agent.

#### USES

- Slabs and foundations
- Walls, columns and piers Slender components with densely packed reinforcements
- Sprayed concrete
- Textured surface finishes
- Pre-cast and pre-stressed concrete elements
- Bridges and cantilever structures

#### FEATURES

Sikament<sup>®</sup>-100LK provides the following properties:

As a Superplasticizer:

- Workability is greatly improved Increased place ability in slender components with packed reinforcement
- Decreases the amount of vibration
- Normal set without retardation
- Significantly reduces the risk of segregation As a water reducer
  - Up to 25% water reduction 16-hour compressive strengths increased by up to 100%
  - 28-day strength improved by up to 40%

#### PRODUCT INFORMATION

<b>Composition</b>	Naphthalene Formaldehyde Sulfonate
<b>Packaging</b>	1000 L (IBC)
<b>Shelf life</b>	12 months if stored properly in original unopened packaging
<b>Storage conditions</b>	Stored in dry conditions, protected from direct sunlight and at temperatures between +5 °C and +40 °C
<b>Appearance and colour</b>	Dark brown liquid
<b>Density</b>	1.20 kg/l (at 25°C) EN 934-2:2001 (E) D ± 0,03 if D > 1,10 D ± 0,02 if D ≤ 1,10 where D is manufacturer's stated value Test method - ISO 758
<b>pH-Value</b>	7.00 (at 25 °C) EN 934-2:2001 (E) Manufacturer's stated value ±1 or within manufacturer's stated range Test method - ISO 4316

## TECHNICAL INFORMATION

<b>Concreting guidance</b>	The standard rules of good concreting practice, concerning production and placing must be followed. Laboratory trials must 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.
<b>Concrete mix design</b>	When using Sikament®-100LK, a suitable mix design must be calculated. The local material sources used within the mix design must always be trialled and approved for suitability before commencement of the project

## SYSTEM INFORMATION

<b>Compatibility</b>	Sikament®-100LK may be combined with many other Sika products. Trials must always be carried out before combining products in specific mixes. Contact Sika Technical Services for additional information and any specific combinations.
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## APPLICATION INFORMATION

<b>Recommended dosage</b>	<b>Mix</b>	<b>Dosage and when added</b>	<b>Slump (cm)</b>
	1	Without Sikament®-100LK	5
	2	1% Sikament®-100LK with gauging water	12
	3	1% Sikament®-100LK immediately after making original concrete and further mixing for 1 min	15
	4	1% Sikament®-100LK, 0.5 hr. after making up concrete or further mixing for 1 min.	16

Concrete consistency measured in terms of slump to DN1048 - with Sikament®-100LK added at different times.

<b>Dispensing</b>	Sikament®-100LK must be measured using suitable equipment then added to the batching gauging water or both added together at the same time into the batching plant concrete mixer. To achieve the optimum performance, a wet mixing time at the batching plant of at least 60 seconds is recommended (dependant on mixing conditions and mixer performance). To avoid excess water in the concrete, the final dosage must begin after 2/3 of the wet mixing time.
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## 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.

## LIMITATIONS OF USE

- Excessive water addition or overdosing may cause bleeding or segregation.
- If frozen and/or separation of the product has occurred, Sikament®-100LK may be used after thawing slowly at room temperature and intensive mixing. Before application, suitability tests must be performed.
- The w/b-ratio and consistence control remains the responsibility of the concrete producer. Laboratory trials are recommended to evaluate and confirm the actual water reduction.
- The chemical and physical composition of the components, concrete, Sikament®-100LK, concrete and ambient temperature can affect the setting time of the concrete.
- Sikament®-100LK must not be added to dry cement.

## 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

## 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 exact product data and uses.

## 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.

**Sika Lanka (Private) Limited**

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