

PRODUCT DATA SHEET

Sikament® NN

HIGH RANGE LIQUID WATER REDUCER / SUPERPLASTICISER ADMIXTURE FOR CONCRETE

DESCRIPTION

Sikament® NN 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

CHARACTERISTICS / ADVANTAGES

Sikament® NN 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

| | | |
|----------------------------|---|------------|
| Chemical Base | Naphthalene Formaldehyde Sulfonate | |
| Packaging | 5 L/container 10 L/container | 210 L/drum |
| Appearance / Colour | Dark brown liquid | |
| Shelf Life | 1 year when unopened | |
| Storage Conditions | The product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +10 °C and +45 °C. Always refer to packaging. | |
| Specific Gravity | 1.19 ± 0.01 kg/L | |

TECHNICAL INFORMATION

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|----------------------------|--|
| Concreting Guidance | 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. |
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APPLICATION INFORMATION

| Recommended Dosage | Mix | Dosage and when added | Slump (cm) |
|--------------------|-----|--|------------|
| | 1 | Without Sikament® NN | 5 |
| | 2 | 1% Sikament® NN with gauging water | 12 |
| | 3 | 1% Sikament® NN immediately after making original concrete and further mixing for 1 min. | 15 |
| | 4 | 1% Sikament® NN, 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® NN added at different times.

Compatibility Sikament® NN 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.

Dispensing Sikament® NN 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.

Restrictions Sikament® NN must not be added to dry cement.

LIMITATIONS

- Excessive water addition or overdosing may cause bleeding or segregation.
- If frozen and/or separation of the product has occurred, Sikament® NN 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® NN, concrete and ambient temperature can affect the setting time of the concrete.

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) 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.

Sika Philippines Inc.
888 Marcos Alvarez Ave.,
Talon V, Las Piñas City, Philippines 1747
Tel. No.: +63 2 8806-2875
Fax. No.: +63 2 8806-2883
Website: phl.sika.com

Product Data Sheet
Sikament® NN
September 2019, Version 01.01
021302011000000072

SikamentNN-en-PH-(09-2019)-1-1.pdf

