

# PRODUCT DATA SHEET

## Sikament® NN Powder

### WATER-REDUCING CONCRETE ADMIXTURE

#### DESCRIPTION

A highly effective superplasticizer for the production of free flowing concrete or as a substantial water-reducing agent for promoting high early and ultimate strength.

- Complies with ASTM C-494 Type F

#### USES

Sikament® NN Powder as a superplasticizer in the production of free-flowing concrete such as:

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

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

- Precast concrete elements
- Hollow blocks and pavements
- Pre stressed concrete
- Bridges and cantilever structures
- Areas of concrete where formwork must be removed quickly or earlyloading applied

#### CHARACTERISTICS / ADVANTAGES

Sikament® NN Powder provides the following properties:

As a superplasticizer:

- Workability is greatly improved
- Increased placeability in slender components with packed reinforcements
- Decreases the amount of vibration
- Normal set without retardation
- Significantly reduces the risk of segregation

As a water reducer:

- Up to 25% water reduction
- 28-day strength improved by up to 40%

#### PRODUCT INFORMATION

<b>Chemical Base</b>	Naphthalene Formaldehyde Sulphonate
<b>Packaging</b>	150 g/pack
<b>Appearance / Colour</b>	Brown powder
<b>Shelf Life</b>	1 year when unopened
<b>Storage Conditions</b>	Store out of direct sunlight, and dry condition.

## Concrete Mix Design

Mix	Dosage and when added	Slump	w/c
1	Without Sikament® NN Powder	6 in.	0.61
2	1 pack (150g) with gauging water	6 in.	0.43
		Compressive Strength (psi)	
Mix	1 day	7 days	28 days
1	930 psi	1,854 psi	2,504 psi
2	1,306 psi	2,799 psi	3,881 psi

## APPLICATION INFORMATION

### Recommended Dosage

1 pack (150 g) by 40 kg bag of cement. Exact dosage rates are dependent on the type of effect sought, quality of cement and aggregates, water/cement ratio and ambient temperature. It is advisable to carry out trial mixes.

### Dispensing

Sikament® NN Powder can be added to the mixing water prior to its addition to the aggregates or as in most cases, it can be added directly to the freshly mixed concrete. When added directly to the freshly mixed concrete, the plasticizing effect is more pronounced. For ready-mix concrete, Sikament® NN Powder is added to the concrete immediately prior to discharge and after further mixing has taken place for three minutes.

## APPLICATION INSTRUCTIONS

Significant overdose will result in increased workability and setting time of the concrete. Under dosage will result in reduced workability (more difficult placing) and shorter setting times (reduced workable life). However, provided the concrete is cured effectively, ultimate strength and properties will not be affected.

## 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.

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Product Data Sheet  
Sikament® NN Powder  
March 2019, Version 01.01  
021302011000000953

SikamentNNPowder-en-PH-(03-2019)-1-1.pdf

