

## Sikament® NN-20

### High Range Water-Reducing Concrete Admixture

<b>Description</b>	Sikament® NN-20 is a highly effective dual action liquid as superplasticizer for the production of flowable concrete and as a substantial water-reducing agent for promoting high early and ultimate strength. Sikament® NN-20 complies with ASTM C494 Type F.
<b>Uses</b>	Sikament® NN-20 is used as a superplasticizer in the production of flowable concrete such as in: <ul style="list-style-type: none"> <li>■ Slabs and foundations</li> <li>■ Walls, columns and piers</li> <li>■ Slender components with densely packed reinforcements</li> </ul> Sikament® NN-20 is also used as a water-reducing agent leading to high early strength concrete such as: <ul style="list-style-type: none"> <li>■ Precast and pre-stressed concrete elements</li> <li>■ Bridges and cantilever structure</li> </ul>
<b>Advantages</b>	Sikament® NN-20 provides the following properties: <i>As a superplasticizer:</i> <ul style="list-style-type: none"> <li>■ Workability is greatly improved</li> <li>■ Increased placeability in slender components with packed reinforcements</li> <li>■ Decreases the amount of vibration</li> <li>■ Normal set without retardation</li> <li>■ Significantly reduces the risk of segregation</li> </ul> <i>As a water-reducer:</i> <ul style="list-style-type: none"> <li>■ Allow substantial cement reduction compared to plain concrete</li> </ul>

#### Product Data

<b>Form/Colour</b>	Liquid / Dark Brown
<b>Packaging</b>	5 / 25 / 200 litres drum
<b>Storage</b>	Dry, cool, shaded place.
<b>Shelf Life</b>	Min. 1 year if stored properly in original unopened packaging

#### Technical Data

<b>Base</b>	Napthalene Formaldehyde Sulphonate
<b>Specific gravity</b>	1.180 – 1.210 kg/l
<b>Chloride content</b>	Nil



## Application

<b>Dosage</b>	0.60 – 2.00 ltr per 100 kg of cement
<b>Typical dosage</b>	0.80 - 1.20 ltr. per 100kg of cement
<b>Compatibility</b>	Possible to combine with all Sikament, Sika Aer, Sika Pump, Sikacrete PP1, but must be added separately to the mix and not pre-mixed prior addition.
<b>Cement types</b>	All Portland cement including sulfate resistant cement.
<b>Dispensing</b>	<p>Sikament® NN-20 is either added to the gauging water prior to its addition to the dry concrete mix or added separately to wetted concrete mix, further mixing should take place for at least 1 minute per m<sup>3</sup>.</p> <p>When added directly to the freshly mixed concrete, the plasticizing effect is more pronounced.</p> <p>For addition at job site, Sikament® NN-20 is added to the concrete immediately prior to discharge and after further mixing has taken place for three minutes.</p>
<b>Overdosing</b>	Significant overdosage will result in a much increased flow of the cement paste. To avoid bleeding or segregation it is recommended to wait until the slump has dropped to specified range prior to placement of concrete.
<b>Notes on application / limits</b>	<ul style="list-style-type: none"> <li>■ Trial mixes are recommended to establish exact dosage rates required to suit individual requirements. If assistance is required, please contact the Sika Technical Service Department.</li> <li>■ Accurate dispensing equipment can be supplied by Sika Ltd. Vietnam</li> <li>■ Use an appropriate mixer and do not mix by hand</li> <li>■ Curing treatment - use of Sika curing compounds to cure concrete is advisable</li> </ul>

## Health and Safety information

<b>Ecology</b>	Do not dispose into water
<b>Transportation class</b>	Non-hazardous
<b>Waste disposal</b>	According to local law
<b>Important notes</b>	Avoid contact with foodstuffs and utensils. Avoid prolonged skin contact. In the event of contamination wash thoroughly with water. If the eyes or mouth are affected wash with clean water and obtain medical attention immediately.

## Disclaimer

*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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