Sikament® NN KH

HIGH RANGE WATER-REDUCING CONCRETE ADMIXTURE

DESCRIPTION

Sikament® NN KH 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.

USES

Sikament® NN KH is used as a superplasticizer in the production of flowable concrete such as in:
- Slabs and foundations.
- Walls, columns and piers.
- Slender components with densely packed reinforcements.

Sikament® NN KH is also used as a water-reducing agent leading to high early strength concrete such as:
- Precast and pre-stressed concrete elements.
- Bridges and cantilever structure.

CHARACTERISTICS / ADVANTAGES

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:
- Allow substantial cement reduction compared to plain concrete.
- Increase water impermeability of concrete.

APPROVALS / CERTIFICATES

Sikament® NN KH complies with ASTM C494 Type F.

PRODUCT INFORMATION

<table>
<thead>
<tr>
<th>Composition</th>
<th>Napthalene Formaldehyde Sulphonate</th>
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<tbody>
<tr>
<td>Packaging</td>
<td>25L/pail ; 200L/drum ; 1000L/IBC</td>
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<tr>
<td>Appearance / Colour</td>
<td>Liquid / brown</td>
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<tr>
<td>Shelf life</td>
<td>Min. 1 year if stored properly in original unopened packaging.</td>
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<tr>
<td>Storage conditions</td>
<td>Dry, cool, shaded place (between 5 and 40 celcius degrees).</td>
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<tr>
<td>Specific Gravity</td>
<td>1.190 - 1.220.</td>
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<td>pH-Value</td>
<td>8 - 10.5</td>
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<tr>
<td>Total Chloride Ion Content</td>
<td>Nil</td>
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</tbody>
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TECHNICAL INFORMATION

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.

**Concrete Mix Design**

When using Sikament® NN KH, 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.

**APPLICATION INFORMATION**

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<thead>
<tr>
<th>Recommended Dosage</th>
<th>0.60 – 2.00 ltr per 100 kg of cement.</th>
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<tbody>
<tr>
<td>Typical dosage</td>
<td>0.80 – 1.20 ltr. Per 100kg of cement.</td>
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**Compatibility**

Sikament® NN KH may be combined with many other Sika products. 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.

Sikament® NN KH is compatible with all Portland cement including sulfate resistant cement.

**Dispensing**

Sikament® NN KH 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 m³.

When added directly to the freshly mixed concrete, the plasticizing effect is more pronounced.

For addition at job site, Sikament® NN KH is added to the concrete immediately prior to discharge and after further mixing has taken place for three minutes.

**IMPORTANT CONSIDERATIONS**

- Significant over dosage 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.
- 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.
- Accurate dispensing equipment can be supplied by Sika.
- Use an appropriate mixer and do not mix by hand.
- Curing treatment use od Sika curing compounds to cure concrete is advisable.

**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.

**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 the exact product data and uses.

**ECOLOGY, HEALTH AND SAFETY**

**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.