

PRODUCT DATA SHEET

Sika® ViscoCrete®-2221 NS

HIGH RANGE WATER REDUCER/SUPERPLASTICIZER

DESCRIPTION

Sika® ViscoCrete®-2221 NS is a third generation High Range Water Reducing/SuperPlasticizing admixture for concrete and mortar.

USES

Sika® ViscoCrete®-2221 NS is specially suitable for the production of concrete mixes which require high strength development, powerful water reduction and excellent flowability

Sika® ViscoCrete®-2221 NS is mainly used for the following applications:

- Ready mixed concrete
- Precast concrete
- Fast track concrete
- In situ concrete requiring fast stripping time
- Self Compacting Concrete (SCC)

CHARACTERISTICS / ADVANTAGES

Sika® ViscoCrete®-2221 NS as a powerful water reducer acts by through surface adsorption and sterical effects separating the binder particles the following properties are achieved:

- Pronounced increased in the early strength development, resulting in very economic stripping times for precast and in situ concrete
- Extremely powerful water reduction, resulting in high density, high strength and reduced permeability for water etc.
- Excellent plasticizing effect resulting in improved flowability, placing and compacting behaviour
- Reduced energy cost for steam cured precast elements
- Especially suitable for the production of Self Compacting Concrete (SCC)
- Improved shrinkage and creep behavior
- Reduced closer times for repair of roads and runways
- It does not contain chlorides or other ingredients promoting corrosion of steel reinforcement. It is therefore suitable for reinforced and pre stressed steel

APPROVALS / STANDARDS

IS 9103, ASTM C494

PRODUCT INFORMATION

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| Chemical Base | Aqueous solution of modified poly carboxylate |
| Packaging | 255 Kg HDPE Drum/ Bulk supply |
| Appearance / Colour | Light brown liquid |
| Shelf Life | 12 months from date of production if stored properly in undamaged unopened, original sealed packaging. |
| Storage Conditions | Store in dry conditions at temperatures between +10°C and +40°C. Protect from direct sunlight and frost. |
| Density | ~1.07 kg/l at 25°C |

APPLICATION INFORMATION

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| Recommended Dosage | Optimum dosage of Sika® ViscoCrete®-2221 NS should be determined by site trials. Recommended dosage: 0.2 – 2.0% by weight of cementitious. A higher dosage might be used if agreed by client or consultant. Stir well before use. |
| Compatibility | Sika® ViscoCrete®-2221 NS may be combined with many other Sika® Products. Compatible with all types of cement and cementitious materials. Important: Always conduct trials before combining products in specific mixes and contact our Technical Service Department for information about specific combinations. |

APPLICATION INSTRUCTIONS

DISPENSING

Sika® ViscoCrete®-2221 NS can be added into the mixing water or directly into the concrete mixer after 50 – 70% of the mixing water has been added.

The addition of Sika® ViscoCrete®-2221 NS to dry aggregate or cement is not recommended.

To achieve optimum performance a minimum wet mixing time, which is depending on the mixing conditions and the mixer performance, of 60 seconds is recommended.

LIMITATIONS

Excessive water addition or overdosing may cause bleeding or segregation.

If frozen and / or if precipitation has occurred, Sika® ViscoCrete®-2221 NS may be used after thawing slowly at room temperature and after intensive mixing.

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

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 Material Safety Data Sheet 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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