

PRODUCT DATA SHEET

Sika® Super-1

HIGH RANGE WATER-REDUCING CONCRETE ADMIXTURE

DESCRIPTION

Sika® Super-1 is a high-range water reducer type concrete admixture of the new generation for the production of high strength concrete with increased acceleration for early strength development.

USES

Sika® Super-1 is used as superplasticizer for flowing concrete at:

- Slabs and Foundations
- Walls and columns with slender dimensions and packed reinforcements
- Beams and Ceilings

Sika® Super-1 is used as high-range water reducer at:

- Pre-casted concreted elements for high quality demands
- Bridges and cantilevers
- Pre-stressed structures

CHARACTERISTICS / ADVANTAGES

Sika® Super-1 provides the following properties:

As superplasticizer:

- Substantial improvement in workability without increase of w/c ratio
- No segregation
- Normal set without retardation
- Accelerated hardening after setting
- Improved density and surface finish (no honeycomb)

As high-range water reducer:

- Greater than 20% water reduction, and increase of the 28 days strength of up to 40% can be achieved
- Early strength increased of more than 100% can easily be achieved (depending on dosage and w/c ratio)
- Increased impermeability to water
- Improved resistance to wear and abrasion

PRODUCT INFORMATION

Packaging	25 kg/gallon
Appearance / Colour	Brown Liquid
Shelf life	12 months from the date of production If stored properly in undamaged, original, sealed packaging.
Storage conditions	Store in dry conditions, protected from direct sunlight at temperature between 5°C and 40°C.
Density	1.150 - 1.170 kg/l
pH-Value	5.5 - 7.5 (Approx.)

APPLICATION INFORMATION

Recommended Dosage	0.5 litre per one bag of cement (50 kilograms weight). Sika® Super-1 is compatible with all types of Portland Cement, including S.R.C. type and Hydraulic Cement.
Dispensing	Sika® Super-1 can be added separately to the freshly mixed concrete, or directly to the gauging water prior its addition to the dry mix. When added separately to the mix, a further mixing of at least one minute should take place. It is typical that a later addition of superplasticizer to the concrete would improve the workability retention.
Restrictions	Concrete shall contain the superplasticizer which shall be Sika® Super-1 as manufactured by Sika. It shall be used in strict accordance to the manufacturer's recommendations.

FURTHER INFORMATION

IMPORTANT CONSIDERATIONS

- Do not add Sika® Super-1 directly onto cement grain without any water.
- Mixing time is very important, so the users should mix the concrete until homogeneous appearance before discharging.
- Sika® Super-1 is not suitable for mixing by hand.
- Users should use concrete obtaining Sika® Super-1 within 1 hour after mixing because of the loss of workability.
- Accidental overdosing of Sika® Super-1 may cause a slight segregation. However it is advisable to prolong the mixing time then, until the mix becomes normal.

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 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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