

## PRODUCT DATA SHEET

## Sika® Retarder-981

## WATER REDUCING AND SET RETARDING CONCRETE ADMIXTURE

## DESCRIPTION

Sika® Retarder-981 is a liquid concrete admixture that functions as a plasticizer and water-reducing agent with set-retarding properties. It complies with ASTM C494/C494M Type D.

## USES

Sika® Retarder-981 is used as a general purpose admixture where the placing conditions for high quality concrete are more demanding such as :

- High ambient temperatures
- Architectural or fair-faced concrete
- Pumped concrete
- Ready-mix concrete
- Mass concrete placements
- High mechanical strengths are required

## FEATURES

Sika® Retarder-981 provides the following features to concrete:

- Extended setting time in hot weather conditions
- Accelerated hardening after setting
- Improved workability without increase water content
- Reduced water demand without loss of workability
- Increased ultimate strengths
- Reduced drying shrinkage and creep
- Enhanced slump retention
- Improved surface finish
- Chloride-free — does not attack reinforcement
- Enhanced performance with aggregates exhibiting high absorption rates

## PRODUCT INFORMATION

Composition	Polyhydroxy Carbon Salts
Packaging	200 L drums (non-returnable) 1 000 L IBC's or bulk delivery
Appearance and colour	Liquid
Shelf life	12 months from date of production if stored properly in undamaged unopened, original sealed container.
Storage conditions	Store in dry conditions at temperatures between +10 °C and +35 °C. Protect from direct sunlight and frost.

## APPLICATION INFORMATION

### Recommended dosage

The effective dosage of Sika® Retarder-981 depends on the type of cement and fine aggregate, in general dosage of Sika® Retarder-981 is in the range of 0.15% - 0.6% by weight of cement.  
Higher dosage than the above can be used for concrete which requires long hours of setting time or specific conditions.  
The dosage rate can be increased to overcome difficulties in quality of cement and aggregates, high temperature, difficult placing conditions, and other special concrete requirement.  
Concrete trial mix shall be carried out to confirm the effective dosage and its effect to concrete properties.

### Compatibility

Sika® Retarder-981 is compatible with all types of Portland cement including hydraulic cement and sulfate resistance cement.

## 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.

## ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

## APPLICATION INSTRUCTIONS

### APPLICATION

Sika® Retarder-981 should be dispensed directly into the mixing water prior to its addition to the aggregates. When accidental overdosing occurs, Sika® Retarder-981 does not entrain excessive amounts of air, however the set retarding effect increases. During this period the concrete must be kept moist in order to prevent premature drying out.

## 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 exact product data and uses.

## 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

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