BUILDING TRUST

PRODUCT DATA SHEET

# SikaPlast®-700

WATER REDUCING AND RETARDING CONCRETE ADMIXTURE

## DESCRIPTION

SikaPlast®-700 is a polycarboxylate based superplasticizer developed particularly for use in ready mixed concrete to give extended slump retention and high strength development of normal grade concrete mixes.
SikaPlast®-700 is suitable for use in concrete mixes incorporating pozzolanic materials such as GGBS, PFA and microsilica.
Suitable for use in hot and tropical climatic conditions.

## USES

- High flow concrete
- Concrete with high water reduction
- High strength concrete
- Slabs
- Foundations
- Walls
- Columns and piers
- Piles
- Pre-stressed concrete,
- Bridges and cantilever structures

## FEATURES

SikaPlast®-700 acts by surface adsorption on the cement particles producing steric hindrance as well as electrostatic repulsion between the binder particles which results in higher dispersion, flow and retention.
SikaPlast®-700 provides the following beneficial properties:

- Substantial improvement in workability without increased water
- Low risk of segregation
- Normal set without retardation (within the dosage limit)
- Improved density and surface finish
- Improved water tightness
- Excellent solution for continuous concrete casting of deep elements
- Does not contain chlorides or other steel corrosion promoting ingredients therefore may be used for reinforced and pre-stressed concrete construction

## CERTIFICATES AND TEST REPORTS

SikaPlast®-700 follows the requirements of ASTM C494; Type G and EN 934-2

## PRODUCT INFORMATION

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| **Composition** | Aqueous solution of modified polycarboxylates, co-polymers | |
| **Packaging** | 1000 L flowbin<br>Bulk supply in tanker trucks possible on request | |
| **Appearance and colour** | Light brown to brown liquid | |
| **Shelf life** | 12 months from date of production if stored properly | |
| **Storage conditions** | Store in undamaged, unopened, original sealed packaging in dry conditions at temperatures between +5 °C and +45 °C. Mix well before using. | |
| **Density** | ~1.06 kg/l (+25 °C) | |
| **Total chloride ion content** | Nil | (EN 934-2) |

## TECHNICAL INFORMATION

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| **Concreting guidance** | The standard rules of good concreting practice for production and placing must be observed when using SikaPlast®-700 in concrete. Refer to relevant standards.<br>Fresh concrete must be cured properly especially at high temperatures in order to prevent plastic and drying shrinkage. Use Sika® Antisol® products as a curing agent or apply wet hessian. |

## APPLICATION INFORMATION

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| **Recommended dosage** | 1.0 - 2.0 % by weight of binder<br>Higher dosages by weight of binder can be used depending on the mix design, raw materials, climatic conditions and concrete requirements.<br>Trial mixes must be performed to establish the exact dosage rate required. |
| **Compatibility** | SikaPlast®-700 may be combined with all types of Portland cement (OPC and SRC), concretes containing pozzolanic materials such as; GGBS, PFA, micro-silica and the following Sika products:<br>SikaPump®, Sika® FerroGard®, SikaFume®, SikaFiber®, Sika® Aer, Sika® Stabilizer, SikaControl®<br>We recommend to perform trial mixes to establish the required performance when combining SikaPlast®-700 with the above products or other admixtures. Please consult our Sika Technical Department. |
| **Dispensing** | SikaPlast®-700 is added to the gauging water or simultaneously poured with it into the concrete mixer at the batching plant.<br>Do not add SikaPlast®-700 directly to the dry mix.<br>For optimum utilization of its high water reduction property we recommend thorough mixing at a minimal wet mixing time of 60 seconds.<br>The addition of the remaining gauging water (to fine tune concrete consistency) may only be started after two-thirds of the wet mixing time to avoid surplus water in the concrete. |

## 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.

## IMPORTANT CONSIDERATIONS

When using SikaPlast®-700 a mix design must be selected for the local material sources used and trial mixes performed to verify suitability.
If frozen and/or if precipitation has occurred, it may only be used after thawing slowly at room temperature and intensive mixing.
SikaPlast®-700 should not be added to dry cement.
Before pouring, suitability tests on the fresh concrete must be carried out. Due to the extended workability take special care that formwork is properly installed and secured. In case the setting time of concrete is extended, if cured properly, other properties may not be affected and higher ultimate strength is visualized.
SikaPlast® products are not compatible with admixtures based on sulfonated naphthalene or melamine.

## 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.

## 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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