BUILDING TRUST

PRODUCT DATA SHEET

SikaPlast®-222 TG

WATER REDUCING AND RETARDING SUPERPLASTICIZING ADMIXTURE FOR CONCRETE

DESCRIPTION

SikaPlast®-222 TG is a polycarboxylate based super-plasticizer developed particularly for use in ready mixed concrete to give extended slump retention and high strength development of normal grade concrete mixes. SikaPlast®-222 TG 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

- Ready mixed and site mixed concrete
- High flow concrete
- Concrete with high water reduction

Concrete with SikaPlast®-222 TG can be used in the following areas of application:

- Slabs
- Foundations
- Walls
- Columns and piers
- Piles
- Pre-stressed concrete structures
- Bridges and cantilever structures

FEATURES

SikaPlast®-222 TG 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®-222 TG 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

CERTIFICATES AND TEST REPORTS

SikaPlast®-222 TG follows the requirements of ASTM C494; Type G and EN 934-2

PRODUCT INFORMATION

Composition	Aqueous solution of modified polycarboxylates, co-polymers	
Packaging	1000 L flowbin. Bulk supply in tanker trucks possible on request	
Appearance and colour	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 +50 °C. Mix well before using.	
Density	~1.05 kg/l (+25 °C)	
Total chloride ion content	Nil	(EN 934-2)

TECHNICAL INFORMATION

Concreting guidance	The standard rules of good concreting practice for production and placing must be observed when using SikaPlast®-222 TG in concrete. Refer to relevant standards. 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

Recommended dosage	0.5 - 2.5 % by weight of binder Higher dosages by weight of binder may be used depending on the mix design, raw materials, climatic conditions and concrete requirements. Trial mixes must be performed to establish the exact dosage rate required.
Dispensing	SikaPlast®-222 TG is added to the gauging water or simultaneously poured with it into the concrete mixer at the batching plant. Do not add SikaPlast®-222 TG directly to the dry mix. For optimum utilization of its high water reduction property, we recommend thorough mixing. 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.
Compatibility	SikaPlast®-222 TG is suitable for mixes containing all types of cement and supplementary cementitious materials such as: Microsilica (Silica Fume), Fly Ash (PFA), GGBS (ground granulated blast furnace slag) and the following Sika products: ▪ SikaPump® ▪ Sika® FerroGard® ▪ SikaFume® ▪ SikaFiber® ▪ Sika® Aer ▪ Sika® Stabilizer ▪ SikaControl® We recommend to perform trial mixes to establish the required performance when combining SikaPlast®-222 TG with the above products or other admixtures. Please consult our Sika Technical Department.

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®-222 TG 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®-222 TG 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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