BUILDING TRUST

PRODUCT DATA SHEET

SikaControl® SRA 872 SA

Shrinkage reducing admixture

DESCRIPTION

SikaControl® SRA 872 SA is a shrinkage-reducing admixture, developed specifically to reduce drying shrinkage of concrete and mortar as well as the potential for subsequent cracking.
SikaControl® SRA 872 SA admixture functions by reducing capillary tension of pore water, a primary cause of drying shrinkage.
Suitable for use in hot and tropical climate conditions.

USES

SikaControl® SRA 872 SA is used for the production of high performance concrete with greatly reduced drying shrinkage, so that the durability of the concrete structure is significantly improved.
SikaControl® SRA 872 SA is mainly used for the following applications:

- Structures with strict demands regarding the limitation of crack width
- In concrete where low drying shrinkage is important
- In situ concrete floors where reduced shrinkage minimizes risk of cracking for the same joint spacing, which therefore allows wider joint spacing without increasing the risk of shrinkage cracking
- In thin bonded topping slabs, to minimize the difference in shrinkage from the existing substrate
- In concrete elements which are restrained against shrinkage
- Concrete in marine environments for enhanced durability
- To improve watertightness in water retaining concrete structures by reducing the drying shrinkage of concrete and therefore reducing the risk of crack development
- Ready-mixed or precast concrete structures requiring shrinkage reduction and long term durability
- Wet mix shotcrete
- Mortars and grouts

CHARACTERISTICS / ADVANTAGES

SikaControl® SRA 872 SA increases cohesion within the concrete pore system. The contraction caused by water loss is reduced which results in significantly reduced drying shrinkage and therefore shrinkage cracking in correctly designed concrete mixes and structures.
With the application of SikaControl® SRA 872 SA the following advantages can be achieved:

- Reduced drying shrinkage cracking
- Reduced potential of slab curling
- Reduced permeability
- Increased concrete durability
- Significantly reduces drying shrinkage by as much as 80% at 28 days, and up to 50% at one year and beyond

SikaControl® SRA 872 SA does not contain chlorides or any other ingredients which promote the corrosion of steel. It is therefore suitable for use in reinforced and prestressed concrete structures.

PRODUCT INFORMATION

Packaging	230 kg drum and 1,000 L IBC (Intermediate bulk container)	
Appearance / Colour	Clear 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	~1.01 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 SikaControl® SRA 872 SA 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.
Effect on Setting	The application of SikaControl® SRA 872 SA will result in retarded setting of the concrete and in cold ambient temperatures this effect will be increased. When combining SikaControl® SRA 872 SA with retarding admixtures, their combined retardation effect and the delay in setting time has to be taken into account.

APPLICATION INFORMATION

Recommended Dosage	1.0 - 4.0 % by weight of binder Dosages outside of this range may be required depending on the level of shrinkage reduction needed. Knowledge of the shrinkage characteristics of the concrete mixture proposed for use is required prior to the addition of SikaControl® SRA 872 SA admixture. The dosage of SikaControl® SRA 872 SA admixture will be dependent on the desired drying shrinkage and the reduction in drying shrinkage required. It is strongly recommended that drying shrinkage testing be performed to determine the optimum dosage for each application and each set of materials.
Compatibility	SikaControl® SRA 872 SA may be combined with all types of Portland cement, concretes containing pozzolanic materials such as: GGBS (Ground Granulated Blast Furnace Slag), Fly Ash (PFA) , Micro Silica (Silica Fume) and the following Sika product ranges / admixtures: Sika® Plasticisers: Sika® ViscoCrete®, SikaPlast®, Sikament®, Plastiment® SikaFiber®, Sika® Aer, SikaPump®, Sika® FerroGard®, Sika® Control. We recommend to perform trial mixes to establish the required performance when combining SikaControl® SRA 872 SA with the above or other admixtures. Please consult our Sika Technical Department.

Dispensing	SikaControl® SRA 872 SA admixture may be added to the concrete mixture during the initial batch sequence or at the jobsite. The mix water content should be reduced to account for the quantity of SikaControl® SRA 872 SA admixture used.

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.

USES

When using SikaControl® SRA 872 SA 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 of the product has occurred, SikaControl® SRA 872 SA may be used after thawing slowly at room temperature and intensive mixing.
SikaControl® SRA 872 SA shall not be added to dry cement.
The actual amount of shrinkage reduction is also dependant on the concrete mix design and the other components of the concrete.
SikaControl® SRA 872 SA will reduce drying shrinkage. It will not eliminate cracking. The reduction of cracking is primarily dependant on good engineering design, that allows for concrete shrinkage by incorporating well designed and properly allocated shrinkage control joints.
Before application, suitability tests must be performed.

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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