



PRODUCT DATA SHEET

SikaControl® NS

SHRINKAGE REDUCING AND COMPENSATING ADMIXTURE

PRODUCT DESCRIPTION

SikaControl® NS is a shrinkage-reducing and compensating admixture. The effect of the dual-mechanism to control shrinkage allows to produce high-performance concrete with greatly reduced potential for drying shrinkage, cracking and curling.

WHERE TO USE

SikaControl® NS can be used in any type of cast-in-place or precast/prestressed concrete, grout, mortar or any other cementitious mixes. Some of the applications of SikaControl® NS may include:

- Concrete floors, to compensate for drying shrinkage cracking, control curling and increased joint spacing
- In thin bonded topping slabs, to minimize the difference in shrinkage between the new topping and the existing substrate
- In concrete elements which are restrained against shrinkage
- For bridge decks and parking structures
- For mass concrete structures such as mat foundations, dams and other structures requiring large thicknesses of concrete exceeding 1 m (3 ft)
- For durable concrete in marine environments
- For watertight concrete in reservoirs, sewage treatment plants, and dams

PRODUCT INFORMATION

CSC MasterFormat®

03 05 00

Packaging

11.34 kg (25 lb) dissolvable bag and 907 kg (2000 lb) FIBC*
* Flexible Intermediate Bulk Container

Appearance / Colour

Powder / Off-white to light brown

CHARACTERISTICS / ADVANTAGES

- Dual-mechanism control effect on the concrete shrinkage giving predictable and reproducible results
- Controlled expansion mechanism for producing a volume stable concrete
- Greatly reduced cracking potential related to autogenous shrinkage
- Reduces curling and allows for increased joint spacing
- Reduces porosity and permeability, resulting in improved concrete durability
- Reduces contraction forces induced from drying shrinkage thus minimizing risks of long-term and unsolicited cracks formation

APPROVALS / CERTIFICATES

Meets the requirements of the following standards:
- ASTM C494, Type S
- NSF/ANSI 61

Shelf Life	1 year when stored in dry warehouse conditions.
Storage Conditions	Store in dry environment; exposed, unprotected material will absorb moisture and carbon dioxide from the air resulting in reduced product performance.
Specific Gravity	Approx 2.71

APPLICATION INFORMATION

Recommended Dosage	<p>The recommended dosage range for SikaControl® NS is from 2 % to 7 % by weight of cement mass for concrete, mortars or grouts. SikaControl® NS, at a 5 % dosage rate, has shown significant reduction in shrinkage cracking in independent lab testing.</p> <p>When trial mixes are performed for mix approval, ensure that all materials used are representative of the materials to be used during actual production. For more information on the optimal dosage regarding the mix design, contact Sika Canada.</p>
Compatibility	SikaControl® NS is compatible with commonly-used SCMs and other Sika® admixtures.
Mixing	<p>Mixing / Dispensing: SikaControl® NS can be added to the concrete either along with the other powder components or after all the other ingredients are added to the concrete mixer or truck. If it is added after all the other ingredients, adequate mixing should be ensured. The 11.34 kg (25 lb) dissolvable bags are designed to disintegrate through a combination of wetting and grinding of the paper during concrete mixing.</p> <p>Limitations:</p> <ul style="list-style-type: none"> Do not introduce repulpable bags into concrete mixes with low water cementitious ratios and smaller size aggregates as these mixes may not develop sufficient mixing energy to fully repulp the bags. Always determine repulpability of bags by pretesting mix designs and batch sequence. Do not pre-mix with other admixtures. <p>Curing: The performance of SikaControl® NS is dependent on proper curing practices. To maximize the shrinkage reducing and compensating effects, it is recommended to follow proper curing practices by wet cure only as per ACI 308 recommendations.</p>

BASIS OF PRODUCT DATA

Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods.

ENVIRONMENT, HEALTH & 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 recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. 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 or may be downloaded from our website at: www.sika.ca

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Product Data Sheet

SikaControl® NS
October 2022, Version 01.01
021403041000000033

SikaControlNS-en-CA-(10-2022)-1-1.pdf

