

PRODUCT DATA SHEET

SikaControl®-40 (NZ)

SHRINKAGE REDUCING ADMIXTURE

DESCRIPTION

SikaControl®-40 (NZ) is a shrinkage reducing admixture used to produce high performance concrete with greatly reduced drying shrinkage.

USES

- In premixed and precast concrete elements to reduce the drying shrinkage of the concrete
- 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 durable concrete in marine environments
- For watertight concrete in reservoirs, sewage treatment plants, dams.

PRODUCT INFORMATION

Chemical Base	Liquid hydroxy combinations
Packaging	20 litre drums, 200 litre drums and bulk delivery
Shelf Life	Twelve (12) months from date of manufacture when stored as stated.
Storage Conditions	Store at temperatures between +5°C and +35°C in unopened original containers protected from direct sunlight and frost.
Appearance / Colour	Colourless liquid
Specific gravity	~ 1.0 kg/litre
Total Chloride Ion Content	Nil

TECHNICAL INFORMATION

Concreting Guidance

Air Entrainment: Air entrainment must be checked and adjusted when using SikaControl®-40 (NZ) in combination with Sika air entraining admixtures. When SikaControl®-40 (NZ) is used in the production of air entrained concrete, a higher dosage of air entraining admixture may be required.

CHARACTERISTICS / ADVANTAGES

- Reduced drying shrinkage
- Reduction in the potential for drying shrinkage cracking
- Reduces the potential for slab curling
- Substantially reduces the occurrence of drying shrinkage cracks and therefore reduces permeability, resulting in improved concrete durability.

APPROVALS / STANDARDS

SikaControl®-40 (NZ) meets and exceeds all requirements of AS 1478.1-2000 as Special Purpose Admixture Type (SN).

Effect on Setting

The use of SikaControl®-40 (NZ) will result in a delay in the setting time of concrete. At low ambient temperatures this effect will be increased. When combining SikaControl®-40 (NZ) with retarding admixtures their combined retardation effect and the delay in setting time has to be taken into account.

APPLICATION INFORMATION

Recommended Dosage

Dosage rates will vary according to materials used, ambient conditions and the requirements of a specific project. Sika recommends a dosage of 2 to 6 L/m³ of concrete, for general concrete applications. Dosage rates outside the recommended range may be used when unusual project conditions require special consideration. In this case, please contact your local regional Sika office or Sika Technical Service Department for more information and assistance.

Dispensing

The required dosage of SikaControl®-40 (NZ) should be added to the concrete at the batching plant, with the gauging water or poured into the concrete simultaneously with the gauging water. It may also be added into the transit mixer at the point of discharge, but an additional mixing time of 5 minutes is required and the concrete should be visually checked for uniform consistency.

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.

LIMITATIONS

- When using SikaControl®-40 (NZ), plant and site trials are always recommended to verify the performance and handling characteristics of the design concrete mix
- SikaControl®-40 (NZ) will reduce drying shrinkage. It will not eliminate cracking. The reduction of cracking is dependant on good engineering design that allows for concrete shrinkage by incorporating well designed and properly located shrinkage control joints
- It is essential to protect the concrete from water evaporation during the crucial early age period. We recommend the use of SikaFilm® evaporation retardant and Sika Antisol® curing compounds for this purpose. Refer to the relevant Product data sheets for information
- SikaControl®-40 (NZ) is compatible with other Sika admixtures; however they must be added separately. Do not pre-mix SikaControl®-40 (NZ) with other admixtures, and always conduct trials to test compatibility.

ECOLOGY HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

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. It may be necessary to ad-

apt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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