

BUILDING PRODUCT INFORMATION SHEET

Sika[®] ViscoCrete[®]-2100 (NZ)

HIGH PERFORMANCE SUPERPLASTICISER FOR CONCRETE

DESCRIPTION

Sika[®] ViscoCrete[®]-2100 (NZ) is a third generation polymer-based ultra-high range superplasticiser combined with strength accelerating components, that results in high early strength.

USES

Sika[®] ViscoCrete[®]-2100 (NZ) is suitable for concrete mixes which require high early strength development. Sika[®] ViscoCrete[®]-2100 (NZ) is mainly used for the following applications:

- Precast concrete
- In situ concrete requiring fast stripping times
- Self compacting concrete
- Prestressed concrete where early release of stressing cables is necessary
- Ready mix concrete where minimum time delays are critical e.g. plant/factory shutdown

- In colder temperatures where accelerated strength development is necessary
- As a substitute for rapid hardening cement
- In tidal situations where wave action may damage fresh concrete.

FEATURES

Concrete containing Sika[®] ViscoCrete[®]-2100 (NZ) has the following advantages:

- High density and high strength
- Pronounced increase in early strength development resulting in early stripping times for precast and in situ concrete
- Reduced energy costs due to reduction in use of steam curing systems
- Reduced closure times for repairs of roads and runways

PRODUCT INFORMATION

Product identifier	Sika [®] ViscoCrete [®] -2100 (NZ)
Place of manufacture	Aotearoa New Zealand
Composition	Aqueous solution of modified polycarboxylate and strength accelerators
Packaging	20 litre pails, 200 litre drums or bulk delivery
Shelf life	Twelve (12) months from date of manufacture when stored as stated.
Storage conditions	Store in unopened original containers protected from direct sunlight and frost at temperatures between +5°C and +35°C.
Appearance and colour	Cloudy brown liquid
Density	~ 1.1 kg/litre
pH-Value	~ 8.0

APPLICATION INFORMATION

Recommended dosage	0.5 - 1.5% by weight of cement Note: Dose rate will affect workability, setting time, early and ultimate strength. Trials are recommended to determine the dose rate for each application.
Compatibility	Compatible with other Sika Admixtures, but add separately. Do not premix.

MANUFACTURER AND IMPORTER INFORMATION

Manufacturer information	Address	Sika (NZ) Limited 85-91 Patiki Road Avondale, Auckland 1026 New Zealand
	Phone number	0800 745 269
	Website	https://nzl.sika.com/
	Email address	info@nz.sika.com
	NZBN	9429000018791

BUILDING CODE INFORMATION

Building Code clauses

Note: This product on its own is not within the scope of the NZ Building Code. It is an additive / admixture for use in the manufacture of concrete, to enhance its performance properties in either its plastic or hardened state. When added to concrete that must comply with the NZ Building Code, and it used in accordance with Sika's technical literature, it will contribute to meeting the requirements of the following clauses:

B1 Structure: Performance Clauses B1.3.1, B1.3.2, B1.3.3 (a, b, f, h, m, q) B1.3.4

B2 Durability: Performance clause B2.3.1-(a) not less than 50 years

F2 Hazardous Building Materials: Performance clause F2.3.1

Building Code compliance statements

Performance B1.3.1, B1.3.2, B1.3.3 (a, b, f, h, m, q), B1.3.4: This product meets the requirements of AS1478.1 Chemical Admixtures for Concrete, Mortar and Grout. When added to concrete during the production phase it contributes to the hardened concrete meeting loading requirements arising from self-weight, imposed gravity loads, earthquake, wind impact, and the effects of creep and shrinkage over time.

Performance B2.3.1 (a) 50 years: This product meets the requirements of AS1478.1 Chemical Admixtures for Concrete, Mortar and Grout. When added to concrete, mortar or grout during the manufacturing process it helps the hardened concrete to achieve its durability requirements and to remain serviceable for 50 years, or more. According to Sika's "Service Improvement" records, maintained within its ISO9001:2015 Quality Management System, this product has performed successfully since it was introduced in 2005.

Performance F2.3.1: This product meets this requirement when used and applied in accordance with Sika's installation instructions and does not present a health hazard to people occupying or using the building. Refer to the Sika Product Technical Data sheet and product Safety Data Sheet nzl.sika.com for further information if required

BASIS OF PRODUCT DATA

All technical data in this document are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

IMPORTANT CONSIDERATIONS

- Sika® ViscoCrete®-2100 (NZ) can be used in conjunction with the following Sika products (trials are recommended): SikaPump, SikaRapid, Sika Retarder, Sika Ferrogard-901, Sika Stabilizer-4 R
- The air content must be checked on each individual mix
- As with all concrete it is essential to protect mixes containing Sika® ViscoCrete®-2100 (NZ) from water evaporation during placement and the crucial early age curing period. We recommend the use of SikaFilm evaporation retardant and Sika An-

tiisol curing membranes for this purpose (refer to the separate SikaFilm and Sika Antisol data sheets for further information).

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.

APPLICATION INSTRUCTIONS

DESIGN REQUIREMENTS

Design requirements for concrete that contains Sika admixtures, or other concrete additives are the responsibility of the ready mixed concrete producer and/or the concrete design engineer.

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DISPENSING

MIXING

- Sika® ViscoCrete®-2100 (NZ) is added to the concrete immediately prior to pouring
- To optimize the water reducing effect, mixes containing Sika® ViscoCrete®-2100 (NZ) require extended mixing times (minimum 5 minutes)
- With higher dose rates, water content of the concrete should be reduced to avoid segregation

FURTHER DOCUMENTATION

Air entrainment: Nil

Water reduction: Up to 30%

MAINTENANCE REQUIREMENTS

Once added the Sika admixture / additive becomes an integral part of the hardened concrete, mortar or grout. Refer to the supplier of that product for their maintenance instructions.

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 the 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. It may be necessary to adapt 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.

The building product/building product line is not subject to warning or ban under section 26 of the Building Act 2004.

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