

BUILDING PRODUCT INFORMATION SHEET

SikaRapid[®]-1 (NZ)

HARDENING AND SET ACCELERATING CONCRETE ADMIXTURE

DESCRIPTION

SikaRapid[®]-1 (NZ) is a new generation hardening and setting accelerator for concrete. It promotes early strength development of concrete without negatively influencing the final strength.

USES

SikaRapid[®]-1 (NZ) is especially suitable for any application where fast early strength development plays a major role, or is of crucial importance within 6 to 24 hours. SikaRapid[®]-1 (NZ) is used for the following applications:

- Precast concrete
- Ready- mixed concrete where early demoulding is essential
- Cold ambient temperatures to achieve sufficient strength gain

- Slip-formed concrete
- Ready- mixed concrete where minimum time delays are critical

FEATURES

SikaRapid[®]-1 (NZ) provides the following advantages through accelerated setting and hardening of the concrete:

- Faster turnaround of formwork in precast applications
- Reduced or eliminated heat or steam curing
- Fast construction processes and early load bearing capacity
- Continuous concreting at low temperatures
- No negative effects on the final strengths

SikaRapid[®]-1 (NZ) does not contain chlorides or any other ingredients which promote the corrosion of steel. It is therefore suitable for use in reinforced concrete.

PRODUCT INFORMATION

Product identifier	SikaRapid [®] -1 (NZ)
Place of manufacture	Aotearoa New Zealand
Composition	Mixture of organic and inorganic complexing agents
Packaging	200 litres and bulk delivery
Shelf life	Twelve (12) months from date of production when stored as stated.
Storage conditions	Store in unopened original containers in dry conditions between +5°C and +35°C.
Appearance and colour	Violet liquid
Density	~ 1.40 kg/litre
pH-Value	~ 8.5

APPLICATION INFORMATION

Application information	<ul style="list-style-type: none">■ In case of danger of frost, winter precautions must be implemented and maintained until the concrete has developed a compressive strength of at least 10 MPa (freeze-resistance).■ Frozen SikaRapid®-1 (NZ) may be used after being thawed slowly at room temperatures and intensive stirring.■ SikaRapid®-1 (NZ) may be used with any non-retarded Sika plasticiser or superplasticiser. Preliminary tests must be carried out in combination with such products
Recommended dosage	Depending on desired acceleration effect 1.0 - 3.0 % by weight of cement. Site trials are advisable to determine optimum dosage rates.
Compatibility	SikaRapid®-1 (NZ) is compatible with other Sika Admixtures - but add SikaRapid®-1 (NZ) separately, do not premix.
Dispensing	SikaRapid®-1 (NZ) is either mixed with the gauging water or added simultaneously with the gauging water into the concrete mixer. It is also possible to add SikaRapid®-1 (NZ) to the basic concrete carried in the transit mixer at the place of discharge. In this case, an additional mixing time of 1 minute per m ³ of concrete must be observed. Prior to its discharge, the concrete is to be checked visually for uniform consistency.

The standard rules of good concrete production and placing must also be observed when SikaRapid®-1 (NZ) is being used. Optimal curing of the fresh concrete is imperative, especially at low temperatures.

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	<p>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:</p> <p>B1 Structure: Performance Clauses B1.3.1, B1.3.2, B1.3.3 (a, b, f, h, m, q) B1.3.4</p> <p>B2 Durability: Performance clause B2.3.1-(a) not less than 50 years</p> <p>F2 Hazardous Building Materials: Performance clause F2.3.1</p>
Building Code compliance statements	<p>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.</p> <p>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 2014.</p>

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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.

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.

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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