BUILDING TRUST

BUILDING PRODUCT INFORMATION SHEET

SikaSet® GB

SET ACCELERATING ADMIXTURE FOR CONCRETE

DESCRIPTION

SikaSet® GB is an admixture that accelerates the early setting time of concrete. Setting times for non-accelerated concrete become longer as temperatures get colder. This affects finishing times of floors. A set accelerating admixture counters this set retardation and can shorten setting times back to normal values (depending on dosage). SikaSet® GB contains chlorides and there are some limitations on its use. (Refer to Important Considerations section).

USES

- In colder temperatures and climates if earlier setting times are required to enable final finishing to take place
- In tidal situations where fresh concrete may be subjected to damaging wave action
- For concrete where any time delays are critical, e.g. plant shut downs, pedestrian / traffic requirements, etc.

FEATURES

- Can be used with all types of Portland cement, including sulphate resistant cement
- Provides faster setting in colder conditions
- Can be used in reinforced concrete, however when using SikaSet® GB it is important to check that the requirements of NZS 3109 and NZS 3101 in regards to the limits on total chloride ion content are complied with. Refer to Important Considerations section.

PRODUCT INFORMATION

Product identifier	SikaSet® GB
Place of manufacture	Aotearoa New Zealand
Composition	Water based liquid
Packaging	200 litres and bulk
Shelf life	Twelve (12) months from date of production when stored as stated.
Storage conditions	Store in unopened, original containers in conditions free from frost and between +5°C and +35°C.
Appearance and colour	Emerald green liquid
Specific gravity	~ 1.38 kg/litre
Total chloride ion content	1 litre contains 0.15 kg of chloride ions. (See Important Considerations section.)

SYSTEM INFORMATION

Compatibility	SikaSet® GB is suitable for use with all cements (For limitation of use check Clause 6.6 in NZS 3109.)

APPLICATION INFORMATION

Recommended dosage	20°C - 15°C	1 litre/100 kg cement
	15°C - 10°C	2 litres/100 kg cement
	10°C - 5°C	3 litres/100 kg cement

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 1999. 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.

IMPORTANT CONSIDERATIONS

- Dosage will depend upon cement type, ambient temperature, early age curing regime and the particular effect desired. Tests should be conducted to determine the most effective dosage rate. A typical dosage is 1 litre per 100 kg of cement for every 5°C temperature drop
- NZS 3109 and NZS 3101 provide limits on the total chloride ions in concrete for various in-service conditions. For example, the New Zealand standard allows 1.6 kg/m^3 acid soluble chloride ion in reinforced concrete in above ground, permanently dry situations, and 0.8kg/m^3 in reinforced concrete in moist

environments. To comply to NZS 3109 for moist environments the dose rates should not exceed as follows: SikaSet® GB 5 litres/m^3

- In situations where these limits will be exceeded, it will be necessary to use Sika® Rapid-2 NZ in place of SikaSet® GB
- Where concrete with a low cement content is being supplied, higher dosages should be used
- Merely increasing cement content of concrete will not usually provide any useful set acceleration
- Water contents affect setting times. The addition of 10 litres/m^3 of water can increase final set times by up to 1 hour. Accordingly reducing water contents by using Sika® mid range water reducers will reduce final set times
- SikaSet® GB must not be diluted with water
- As with all concrete and mortars, it is essential to protect mixes containing SikaSet® GB from water evaporation during the crucial early age curing period. We recommend the use of Sika Antisol curing membranes for this purpose. Refer to the Sika Antisol data sheet for information
- Any stated performance criteria is based on extensive testing and historical data. However, all information relating to setting times and early age strength development should be regarded as indicative. Actual results may vary depending on conditions
- High dosages of SikaSet® GB may produce colour variations or patchiness of colour in the surface of hardened concrete
- SikaSet® GB is not recommended for use in coloured concrete.

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.

DISPENSING

- SikaSet® GB should be added directly with the mixing water at the ready mixed concrete plant
- SikaSet® GB may be added to ready mixed concrete on arrival at the site, however a reduction in added water must be made during batching to compensate for the additional water in the admixture dosage.

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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