

PRODUCT DATA 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

CHARACTERISTICS / ADVANTAGES

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

Chemical Base	Mixture of organic and inorganic complexing agents
Packaging	200 litres and bulk delivery
Appearance / Colour	Violet liquid
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.
Density	~ 1.40 kg/litre
pH-Value	~ 8.5

TECHNICAL INFORMATION

Concreting Guidance

REMINDER: Concreting in cold weather

The role of an accelerator is only to activate the cement hydration process. This process is only possible if the initial temperature of the concrete is greater than or equal to +5°C. In this case, the accelerator activates the exothermic setting reactions and generates an internal temperature sufficient to ensure hardening of the concrete, even if the outside temperature drops below 0°C.

APPLICATION INFORMATION

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 m³ of concrete must be observed. Prior to its discharge, the concrete is to be checked visually for uniform consistency.
Restrictions	<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

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.

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 of merchantability or of fitness for a

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