

PRODUCT DATA SHEET

SikaRapid®-1

HARDENING ACCELERATOR - ADMIXTURE

DESCRIPTION

SikaRapid®-1 increases the early strength of concrete and mortar without affecting the initial workability and final strength.

USES

SikaRapid®-1 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 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 provides the following advantages through accelerated 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

When applied with a superplasticizer, SikaRapid®-1 will not change the fresh concrete properties produced by the superplasticizer.

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

APPROVALS / STANDARDS

Conforms to the requirements of IS 9103, EN 934-2, Table 7

PRODUCT INFORMATION

Chemical Base	Mixture of organic and inorganic complex agents.
Packaging	20kg, 230 Kg Drum
Appearance / Colour	Pale yellow to Reddish colour liquid
Shelf Life	12 months shelf life from date of production if stored properly in undamaged, unopened, original sealed packaging.
Storage Conditions	Storage at temperatures between +10 °C and +40 °C. Protect from direct sun-light, frost and contamination.
Density	~1.17 kg/l (at +23°C)
pH-Value	≥ 6

TECHNICAL INFORMATION

Concreting Guidance

The standard rules of good concreting practice, concerning production and placing, are to be followed. Laboratory trials shall be carried out before concreting on site, especially when using a new mix design or producing new concrete components. Fresh concrete must be cured properly and curing applied as early as possible.

APPLICATION INFORMATION

Recommended Dosage

0.50 – 2.0% by weight of cement/ Higher dosage may be used. Exact dosage rates are however dependant on the type of effect sought, quality of cement and aggregates, water/cement ratio and ambient temperature. Actual dosage to be finalised on the basis of site trials.

Restrictions

SikaRapid®-1 shall not be added to dry cement.

APPLICATION INSTRUCTIONS

DISPENSING

SikaRapid®-1 is added to the gauging water or added with it into the concrete mixer.
SikaRapid®-1 may also be added into the ready-mix truck on site. When added on site the truck mixer shall rotate its drums at maximum revolutions for at least 1 minute per m³ concrete and a minimum of 5 minutes to achieve a uniform mix. The concrete has to be visually checked for uniform consistence before discharging.

LIMITATIONS

When using SikaRapid®-1 a suitable mix design has to be produced and the local material sources shall always be trialled.
If frozen and/or if precipitation of the product has occurred, SikaRapid®-1 may be used after thawing slowly at room temperature and intensive mixing.
Before application, suitability tests must be performed.
It is advised against the application of SikaRapid®-1 in pre-tensioned pre-stressed concrete produced with the span bed method.

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.

LOCAL RESTRICTIONS

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.

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.

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