

## PRODUCT DATA SHEET

# SikaRapid®-500 HX

Set and hardening accelerator for concrete

## DESCRIPTION

SikaRapid®-500 HX is a set and hardening accelerator for concrete based on crystalline seeding technology promoting early-strength development. Calcium hydroxide particles in a stable suspension initiate the crystallization of Portlandite by promoting the phase transition.

## USES

The Product is especially suitable for any application where fast early-strength development is required or is of crucial importance within the first hours. It is used for the following applications:

- Pre-cast concrete
- Ready-mixed concrete where early demoulding is essential
- Ready-mixed concrete where minimum time delays are critical
- Slip-formed concrete
- Concrete mixes containing blended cements

Please note:

- Not suitable for use in pre-stressed or pre-tensioned concrete

## FEATURES

The Product provides the following advantages through accelerated hardening and setting of concrete within 4 to 18 hours, depending on the concrete mix design, fresh concrete temperature and curing conditions:

- Increases strength development while having little negative influence on workability
- Allows for faster turnaround of formwork in pre-cast applications
- Reduces or eliminates heat or steam curing
- Allows for fast construction processes and early load-bearing capacity
- Reduces waiting time before power-floating floors
- Increases early-strength development of concrete mixes produced with blended types of cement
- Utilization of optimized binder paste volume makes for increased durability
- Free from chlorides or any other ingredients which promote the corrosion of steel in reinforced concrete

## SUSTAINABILITY

- Environmental Product Declaration (EPD) in accordance with EN 15804. EPD independently verified by Institut für Bauen und Umwelt e.V. (IBU)

## PRODUCT INFORMATION

Composition	Calcium Hydroxide suspension in aqueous solution
Packaging	1250 kg IBC Refer to the current price list for available packaging variations.
Appearance and colour	White
Shelf life	6 months from date of production
Storage conditions	Storage temperatures between +5°C and +30°C. Protect from direct sunlight, frost and contamination. Refer to the current Safety Data Sheet for information on safe handling

and storage.

Density	1.25 kg/l	(ISO 758)
pH-Value	(12.6 ± 0.5)	(ISO 4316)
Conventional dry material content	35 % by mass	(EN 480-8)
Total chloride ion content	< 0.01 % by mass	(EN 480-10; EN 480-8)
Equivalent sodium oxide	8 % by mass	(EN 480-12)

## APPLICATION INFORMATION

Recommended dosage	1.0 % to 4.0 % by weight of cement (according to the target accelerating effect)
Compatibility	The Product can be combined with other Sika products. Always conduct trials before combining different products, contact your local Sika technical service for information.

## 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.

## APPLICATION INSTRUCTIONS

### DISPENSING

#### Concreting guidance

Note: Follow the standard rules of good concreting practice, concerning production as well as placing.

1. Carry out laboratory trials before concreting on site, especially when using a new mix design or producing new concrete components.
2. Cure fresh concrete properly and apply curing as early as possible, especially at low temperatures.

1. IMPORTANT Do not add with the dry components. Add the Product with the water or directly into the concrete.
2. Alternatively, add the Product into the readymix truck on site. IMPORTANT The truck mixer must rotate its drums at maximum revolutions for at least 1 minute per m<sup>3</sup> of concrete and a minimum of 5 minutes to achieve a uniform mix.
3. Visually check the concrete for uniform consistence before discharging.

## LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product 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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