

Sika® Rapid-1

Hardening Accelerating Admixture

Description Sika® Rapid-1 is a non-chloride hardening accelerator formulated to increase the early strength of concrete without affecting the initial workability.

Where to Use

- Concreting with high early strength requirements
- Precast concrete production
- Cold weather concreting

Advantages **High Early Strength Concrete:** Sika® Rapid-1 delivers excellent results in normal and hot weather conditions where very high early strengths are required.

Benefits

- Early stripping and re-use of forms.
- Faster finishing operations on flatwork surfaces.
- Earlier post-tensioning.
- Effective with Type I/II/III cements.

Precast concrete: Sika® Rapid-1 delivers excellent results for precast concrete when high early strengths are required. Curing times are significantly reduced while concrete quality is improved.

Benefits

- Use as a replacement for steam curing to save energy costs.
- Increase early strengths and allow faster rotation of molds to increase productivity.
- Use as a replacement for HE Type cement (Type 30).

Sika® Rapid-1 does not contain calcium chloride or any other intentionally added chlorides and will not initiate or promote the corrosion of reinforcing steel present in the concrete.

Cold weather concreting: Sika® Rapid-1 is an effective hardening accelerator where high early strength concrete is desired and the use of calcium chloride is prohibited.

Benefits

- Insulation and heating costs for curing time can be reduced.
- Earlier stripping and reuse of forms increases labor productivity.
- Accelerated strength gain allows earlier structural use and speeds completion time.

Placing concrete in freezing conditions: When used at Sika recommended dosage rates, Sika® Rapid-1 may reduce the need for cold weather concreting practices as specified in ACI 306 - Standard Specification for Cold Weather Concreting. Field evaluations should be carried out when concrete is to be placed in freezing conditions to determine the minimum ambient and concrete temperatures required, and the optimum dosage for the desired setting time and strength performance. Sika strongly recommends that appropriate sound curing practices be used to protect fresh concrete from excessive heat loss in extreme weather conditions.

Standards Sika® Rapid-1 meets the requirements of ASTM C494 Type C accelerating admixtures.

Typical Data	
Packaging	205 L (54 US gal.) drum 1040 (275 US gal.) IBC container Bulk delivery
Colour and Form	Pink/Purple liquid
Shelf Life and Storage	1 year when stored in dry warehouse conditions between 10 - 27°C (50 - 80°F). Store at above 5°C (40°F). If frozen, thaw and agitate thoroughly to return to normal state.
Properties	
Specific Gravity	Approx. 1.17



How to Use

Dosage

To promote high early strength Sika® Rapid-1 may be used at the rate of 520 - 1950 mL/ 100 kg of cementitious material. When used to protect concrete from freezing, dosage will vary with different brands of cement and ambient temperatures and higher dosages may be necessary. Adjust water content accordingly when used at dosage of 1040 mL/100 kg of cementitious material or higher. Sika recommends that trial mixes be performed to determine the most efficient dosage. Please contact your Sika Canada Technical Sales Representative for further information.

Mixing

Add correct amount of Sika® Rapid-1 at the concrete plant or into ready mix truck at the job site. The admixture may be added manually or by automated dispenser directly into the sand or into the water line at the batch plant. When used in combination with other admixtures care must be taken to dispense each admixture separately into the mix. Do not mix with dry cement.

Use With Other Admixtures:

Sika® Rapid-1 performs well in combination with other admixtures such as non-retarding water reducers, high range water reducers and air entraining agents. Do not mix Sika® Rapid-1 with expansion agents or shrinkage compensating agents.

Curing

Finish and cure Sika® Rapid-1 concrete in accordance with sound concreting practices as specified in ACI 302 and 308. For placement in sub-freezing temperatures, Sika® Rapid-1 may be used to speed finishing and curing times per ACI 306 - Standard Specification for Cold Weather Concreting.

Clean Up

Use personal protective equipment (chemical resistant goggles/gloves/clothing). Without direct contact, remove spilled or excess product and place in suitable sealed container. Dispose of excess product and container in accordance with applicable environmental regulations.

Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the **most recent Material Safety Data Sheet** containing physical, ecological, toxicological and other safety-related data.

KEEP OUT OF REACH OF CHILDREN
FOR INDUSTRIAL USE ONLY

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, within their shelf life. 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 recommendations, or from any other advice offered. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users should always refer to the most recent issue of the Product Data Sheet for the product concerned, copies of which will be supplied on request or can be accessed in the Internet under www.sika.ca.



Sika Canada Inc.
Head Office
601 Delmar Avenue
Pointe-Claire, Quebec
H9R 4A9

Other Locations
Toronto
Edmonton
Vancouver

1-800-933-SIKA
www.sika.ca

An ISO 9001 certified company
Pointe-Claire: ISO 14001 certified EMS