



PRODUCT DATA SHEET

Sika Set R.H.E.

LOW TEMPERATURE, NON-CHLORIDE, ACCELERATING ADMIXTURE



PRODUCT DESCRIPTION

Sika Set R.H.E. is a unique, next generation, non-chloride accelerating admixture for concrete. In laboratory and field evaluations against the major competitive non-chloride accelerators, Sika Set R.H.E. has demonstrated unsurpassed acceleration of setting time and strength over a wide range of cold weather temperatures and dosages. With adequate protection, concrete containing Sika Set R.H.E. can be placed in subfreezing temperatures with superior setting time and compressive strength results. Field evaluations must be conducted in order to determine Sika Set R.H.E. dosage necessary in order to meet setting time and strength development requirements.

WHERE TO USE

Sika Set R.H.E. is designed for concrete where accelerated setting and strength gain characteristics are desired. Sika Set R.H.E. is especially effective in concretes containing such pozzolanic materials as fly ash, silica fume and slag. In addition to the set accelerating characteristics of Sika Set R.H.E., the strength gains allow earlier finishing and form removal as well as reducing energy costs in cold-weather concreting

PRODUCT INFORMATION

CSC MasterFormat®	03 05 00
Packaging	205 L (54 US gal.) drum 1040 L (275 US gal.) IBC Bulk delivery

CHARACTERISTICS / ADVANTAGES

- Superior set acceleration.
- Controlled acceleration (determined by dosage).
- Reduced segregation and bleeding.
- Reduced permeability.
- Superior finishability.
- Increased durability.
- Earlier stripping and re-use of forms.
- Increased early and ultimate compressive and flexural strengths.
- Reduced protection time and/or protective measures in cold weather

APPROVALS / CERTIFICATES

Sika Set R.H.E. meets or exceeds the requirements of ASTM C494, Types C and E and CSA A23.1-00.

Shelf Life	1 year when stored in dry warehouse conditions between -29 to 27°C (-20 to -80°F).
Storage Conditions	Store at above -29°C (-20°F). If frozen, thaw and agitate thoroughly to return to normal state. Protect from direct sunlight.
Appearance / Colour	Brown liquid
Specific Gravity	Approx. 1.4
Recommended Dosage	DOSAGE

The recommended dosage range for Sika Set R.H.E. is 650 - 1300 mL/100 kg of cementitious material. However, if necessary, this dosage range may be extended to 325 - 3900 mL/100 kg of cementitious material. The accelerating effect of the admixture is proportional to the dosage. When concreting at sub-zero temperatures, dosage can be increased up to 5850 mL/100 kg. Consult your Sika representative for dosage recommendations. It is suggested that trial batches be conducted in order to determine the required dosage for optimum performance with your concrete components. Contact your Sika Canada Technical Sales Representative for further information

RECOMMENDED DOSAGE RATE CHART

Ambient Temperature	Concrete Temperature at the Batching Plant	Concrete Temperature at the Batching Plant
15 to 20°C (60 to 68°F)	21 to 24°C (70 to 75°F)	
-7 to -3°C (20 to 25°F)	5220 mL	4890 mL
-4 to -1°C (26 to 30°F)	4890 mL	4560 mL
0 to 2°C (32 to 35°F)	4560 mL	4240 mL
3 to 5°C (36 to 41°F)	4240 mL	3910 mL
6°C (42°F)	3910 mL	3590 mL



The dosage rates are a suggested starting point for your mix design. Many factors can influence your specific mix and test trials are strongly recommended. When using the dosage chart, choose the proper dosage rate by using the predicted low temperature for the eight hours after placement. When the wind chill will be below -9°C (15°F), this procedure is not recommended, due to rapid heat loss from the concrete.

When the load size is less than 4 m³ (5 yd³), the concrete temperature should be above 21°C (70°F) with heated sand if available. Heat loss will occur more rapidly with small loads.

Concrete temperature exceeding 24°C (75°F) may cause rapid slump loss and should therefore be avoided.

For low slump concrete mixes (50 mm/2 in or less) such as curb and gutter applications:

- Concrete temperatures should be between 15 - 20°C (60 - 68°F) degrees to avoid slump loss.
- Reduce the recommended dosage by 1300 mL/kg.

Mixing

MIXING

For best results, it is recommended to dispense SikaSet® RHE into the batched water. Sika Set R.H.E. is compatible with other Sika® admixtures. However, each admixture should be added separately to the mix

BASIS OF PRODUCT DATA

Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods.

ENVIRONMENT, HEALTH & SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

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 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 recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. 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 or may be downloaded from our website at: www.sika.ca

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Product Data Sheet

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