

PRODUCT DATA SHEET

Sika® Antifreeze-1000

Cold weather concrete admixture .

DESCRIPTION

It is a safe and chloride free admixture in liquid form for producing high quality concrete while accelerating setting time at moderately low temperatures.

USES

Sika® Antifreeze-1000 provides progressing of concreting in cases where it may be necessary to suspend due to risky cold or freezing following conditions:

- Slight daytime frost .
- Expected overnight frost .
- Expected cold periods .

CHARACTERISTICS / ADVANTAGES

- Increased frost resistance
 - Improved strengths
 - It provides quickly achieving limit compressive strength (4-5 N/mm²), that is necessary against freezing conditions and shortens this period
- Sika® Antifreeze-1000 does not contain chlorides or other ingredients promoting corrosion of steel reinforcement. It is therefore suitable for reinforced concrete.

APPROVALS / CERTIFICATES

Conforms to the requirements of ASTM C 494 Type C

PRODUCT INFORMATION

Composition	Liquid, including special salts
Packaging	20 kg pail, 200 kg drum 1000 kg container
Shelf life	24 months from date of production if stored properly in undamaged un-

opened, original sealed packaging.

Storage conditions	In dry conditions at temperatures between -10°C and 35 °C. Protect from direct sunlight .
Appearance and colour	Transparent yellowish liquid
Density	1,16 – 1.20 kg/l (at +20°C)
pH-Value	5-9
Total chloride ion content	Max. 0,10%, chloride-free
Equivalent sodium oxide	Max. 3%

APPLICATION INFORMATION

Recommended dosage	1 % by weight of cement (for 100 kg cement, 1.000 g)
Dispensing	Sika® Antifreeze-1000 is added to the gauging water at the plant or added on site into the concrete mixer. When added separately to the freshly mixed concrete, further mixing should take place for at least 3 minutes. Before being discharged, the concrete must be visually inspected for even consistency.
Compatibility	Sika® Antifreeze-1000 may be combined with the following Sika products among others <ul style="list-style-type: none">▪ SikaPump®▪ SikaFume® HR▪ Sika® Ferrogard®-901▪ Sikament® / ViscoCrete® Trials are recommended before combining 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.

FURTHER INFORMATION

- When using Sika® Antifreeze-1000 a suitable mix design has been taken into account and local material sources should be trialled.
- Sika® Antifreeze-1000 should not be added to dry cement.
- Sika® Antifreeze-1000 should be added with the mixing water or introduced at the end of the mixing process.
- Before application, the compatibility tests must be performed. When concreting in cold conditions, attention should be paid to the following important points:
 - Keep form work and reinforcement free from water, snow or ice. Where required pre-heat to 0°C minimum.
 - If it is possible, instead of steel, wooden formwork must be used.
 - Instead of blended cements, higher clinker rate cements must be preferred.
 - All form work must be designed to act as thermal insulation.
 - Fresh concrete temperature must be at least

between 5°C and 15°C temperatures depending on ambient temperature and concrete thickness.

- Moisture and heat loss of concrete must be prevented by maintaining cover and insulation and the concrete must be protected until concrete achieves 4-5 N/mm² strength
- If Sika-Antifreeze freezes in the drum, thaw gradually in a heated environment (avoid direct flame contact). Once thawed all properties remain unaffected.

ECOLOGY, HEALTH AND SAFETY

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 war-

PRODUCT DATA SHEET

Sika® Antifreeze-1000

December 2021, Version 01.01

021402011000000015

ranty 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.

Sika Iraq (Sika Trading L.L.C.)

Erbil / Baghdad / Basra

Tel: +96 477 303 74451

info@iq.sika.com

irq.sika.com

SikaAntifreeze-1000-en-IQ-(12-2021)-1-1.pdf

PRODUCT DATA SHEET

Sika® Antifreeze-1000

December 2021, Version 01.01

021402011000000015

