

Sika® Lightcrete®-02

Admixture for lightweight concrete

Product Description

Sika® Lightcrete®-02 is a liquid admixture for the production of lightweight concrete and mortar. Its efficiency is based upon the entrainment into the mix of the necessary quantity of air pores during the mixing process. Physical properties of the mix such as density, air pore content and compressive strength depend on the composition of the aggregate, their partial replacement with lightweight aggregates, water content, binder content and mixing times.

Uses

Sika® Lightcrete®-02 is suitable for site mixed concrete as well as ready mixed concrete. Sika® Lightcrete®-02 is used for the production of lightweight concrete for the following applications:

- Filling of trenches and pipes
- Thermal and acoustic insulation
- Lightweight screeds

Characteristics / Advantages

- Up to 35% air entrainment possible
- Stable air content, even after concrete placement
- Pumping of the mix is possible
- Dry density of 800 – 1600kg/m³ is possible with lightweight aggregates
- Easy dispensing with standard dosing equipment
- Chloride free

Product Data

Form

Appearance/Colours	Liquid	Clear / Amber
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Packaging	25 and 200 litre drums.
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Storage

Storage Conditions / Shelf-Life	Store in a dry area between 5°C and 25°C. Protect from direct sunlight and frost. 12 months in original unopened containers.
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Technical Data

Chemical Base

Density	±1,02 kg/litre
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pH Value	± 10
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Application Details

Consumption/Dosage	0,5 – 2,0% by weight of cement. Exact dosage rates are determined by air meter tests of trial mixes. Factors affecting air contents include: type, grading and proportion of sand, cement and aggregates, cement content per cubic metre, type and fineness of cement, water cement ratio and temperature.
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Application Instructions

Mixing (Ratio/Dosage)	Sika® Lightcrete® -02 is added directly to the gauging water prior to its addition to the aggregates or, simultaneously together with the gauging water into the concrete mixer. Sika® Lightcrete® -02 may also be added to the pre-mixed concrete directly into the transit mixer at the point of discharge. An additional mixing time of at least 2 minutes per cubic metre of concrete must be strictly observed. Test the concrete for intended density before discharging.
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The mixing time necessary to achieve a specific density of fresh concrete depends on the type of mixer used, aggregates and cement binder. Therefore, trials should be carried out to determine the mixing procedures to be adopted to attain the required air pore content and fresh concrete density.

Notes on Application/Limits	The standard rules of good concrete production and placing must be strictly observed; in particular, proper curing procedures must be exercised. Sika® Lightcrete® -02 is compatible with the following Sika admixtures: Sika Pump, Sikament, Plastiment and Sika Retarder.
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Local Restrictions	Please note that as a result of specific local regulations the performances of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.
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Health and Safety Information

Protective Measures	Upon contact with skin, wash off with water and soap. In case on contact with eyes or mucous membrane, rinse immediately with clean water and seek medical attention without delay.
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Ecology

Transportation Class

Important Notes	Residues of material must be removed according to local regulations. Fully cured material must be disposed of as household waste under agreement with the responsible local authorities. Detailed health and safety information as well as detailed precautionary measures e.g. physical, toxicological and ecological data must be obtained from the Material Safety Data Sheet.
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Toxicity

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 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, must be inferred either from this information, or from any written 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 must 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 accessed on the Internet under www.sika.co.za .
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