

## PRODUCT DATA SHEET

# Sika® Luftporenbildner LPS A-94

Air-entraining agent for concrete with resistance to freezing/thawing and de-icing salts / synthetic

### DESCRIPTION

Sika® Luftporenbildner LPS A-94 is utilised for the manufacture of mortar and concrete with high resistance to freezing/thawing and de-icing salts. Even under difficult conditions such as e.g. in concrete road construction, the desired air pore content is securely achieved.

### USES

- Concrete road construction and bridge construction
- Road surfacing concrete
- Cap concrete
- Ready-mixed concrete with long travelling distances
- Air-entrained concrete in conjunction with plasticizers and superplasticizers
- Mixtures with low content of ultra-fines to improve workability
- Screeds
- Ready-mixed mortar

### CHARACTERISTICS / ADVANTAGES

Sika® Luftporenbildner LPS A-94 causes:

- The formation of the smallest, evenly distributed air pores even under difficult conditions
- An expansion possibility for freezing water
- A reduction of the capillary suction effect
- A substitute of fines

This causes in mortar and concrete:

- An air pore system that fulfils the requirements of micro-air pore content and spacing factor
- A high resistance to freezing/thawing and de-icing salts
- A reduced capillary water absorption
- An improved workability by means of "ball bearing effect"

### APPROVALS / CERTIFICATES

Complies with EN 934-2 Table 5 (air-entraining agent). Contains only components according to DIN EN 934-1:2008, Appendix A.1. Applicable in concrete with alkali-reactive aggregates (Alkaline Directive 4.3.2 (1))cFulfils the requirements of the DVGW work sheets W270 and W347. Can be utilised in all EC countries.

### PRODUCT INFORMATION

<b>Composition</b>	Synthetic surfactants
<b>Packaging</b>	Drum: 200 kg Replacement container: 1000 kg Bulk delivery: From 6 t
<b>Appearance / Colour</b>	Fluid / Brown
<b>Shelf life</b>	Minimum of 1 year shelf life in sealed containers. Mix before using after longer storage times.
<b>Storage conditions</b>	Protect against frost, strong sunlight and contamination. Utilise clean tanks and containers when delivered in bulk.

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Density	1.00 g/cm <sup>3</sup> at +20°C
pH-Value	approx. 7
Total chloride ion content	≤ 0.10 %
Equivalent sodium oxide	≤ 0.5 %

## APPLICATION INFORMATION

Recommended dosage	0.2 - 0.8 % of the cement mass
Compatibility	We recommend that Sika® Luftporenbildner LPS A-94 is either added simultaneously with the water of the concrete mix or as the last addition. Do not meter into the dry mix. The required mixing time after the addition is mixer-dependent and should be at least 60 seconds.
Dispensing	Since the air pore formation in concrete and mortar depends on very many factors, attention must be paid to the different parameters such as temperature, concrete composition, mixing time, compaction, pumping process among other things (refer to the technical data sheet "Production and processing of air-entrained concrete" from the research association for roads and transport). Regular checks of the air pore content are required when concreting. An initial test according to DIN EN 206-1/DIN 1045-2 is required before use.

## BASIS OF PRODUCT DATA

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

## 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 the exact product data and uses.

## 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. Further notes and information data sheets on product safety and disposal can be found on the Internet at [www.sika.de](http://www.sika.de).

## 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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