

# PRODUCT DATA SHEET

## Sika® Aer-46

### Air Entraining Concrete Admixture

#### PRODUCT DESCRIPTION

Sika® Aer-46 is a liquid air entraining concrete admixture which is formulated from modified naturally occurring and synthetic surfactants. It meets the requirements of BS EN 934-2.

#### USES

- Sika® Aer-46 promotes the distribution of microscopic air bubbles throughout the cement matrix.
- Applications that require high resistance to freeze/thawing cycles
- Concrete that will be exposed to tidal conditions, splash zones and de icing salts

#### CHARACTERISTICS / ADVANTAGES

- Provides consistent bubble size and spacing
- Improved cohesion
- Improved workability
- Improved rheology
- Reduced permeability
- Reduced bleeding
- Reduced laitance, enhancing the concrete's resistance to frost attack
- Reduced loss of air from fresh concrete

#### APPROVALS / STANDARDS

Conforms to the requirements of BS EN 934-2 Table 5 DoP 37006325, certified by Factory Production Control Body 1029 and provided with the CE mark  
DoP 36439175, certified by Factory Production Control Body 0120 and provided with the UKCA mark

#### PRODUCT INFORMATION

Chemical Base	Modified surfactants
Packaging	20 litre drum, 200 litre drum, 1000 litre IBC
Appearance / Colour	Clear Liquid
Shelf Life	12 months from date of production if stored properly in undamaged containers.
Storage Conditions	Store in dry conditions at temperatures between +5°C and +25°C. Protect from direct sunlight and frost.
Density	1.00 kg/l (at +20°C)
pH-Value	6.0 ± 1.0
Total Chloride Ion Content	<0.10% w/w (chloride free)
Equivalent Sodium Oxide	<0.10% w/w (alkali content)

**Specific Advice** Freezing Point : +1°C  
Effect of Overdosing : Increased air content leading to reduced densities and strength

**Effect on Setting** Negligible

## APPLICATION INFORMATION

**Recommended Dosage** 0.1 -0.8% by weight of cement

**Compatibility**

**Sika® Admixtures:**

- Compatibility information available on request

**Cements:**

- All cement combinations
- Pulverised Fuel Ash (PFA) is a waste product of modern electricity generation. Only use PFA complying with the relevant British Standard in structural concrete. Such material will vary within the parameters laid down in the standard. Eg fineness, carbon content and loss on ignition. As a result, the amount of Sika® Aer-46 required may vary to maintain a specific air content.

**Dispensing** Sika® Aer-46 should be dispensed through suitable calibrated dosing equipment.

## VALUE BASE

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.

## ECOLOGY, HEALTH AND SAFETY

### REGULATION (EC) NO 1907/2006 - REACH

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.

## APPLICATION INSTRUCTIONS

### APPLICATION METHOD / TOOLS

- The standard rules of good concreting practice, concerning production as well as placing, are to be followed. Refer to relevant standards. Fresh concrete must be cured properly.
- Sika® Aer-46 should not be added to dry cement
- Sika® Aer-46 should be added with the mixing water

## NOTES ON APPLICATION / LIMITATIONS

- When using Sika® Aer-46 a suitable mix design is required and local material sources should be evaluated.
- Due to the significant number of constituent, mix design, manufacture and placing related factors outside Sika's control, bubble spacing determination should be carried out by the concrete producer to ensure compliance with BS – EN 934-2. Bubble spacing should be completed using the specific concrete constituents/admixture combinations. For further information see CAA Admixture information sheet AIS 16 which is available at [www.admixtures.org.uk](http://www.admixtures.org.uk)
- Support from our Technical Department is recommended

## LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

## 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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**Product Data Sheet**

Sika® Aer-46  
April 2021, Version 02.03  
021403021000000085

SikaAer-46-en-GB-(04-2021)-2-3.pdf

