

# PRODUCT DATA SHEET

## Sika® Air Pak

### AIR ENTRAINING CONCRETE ADMIXTURE

#### PRODUCT DESCRIPTION

Sika® Air Pak is a powdered air entraining admixture which is formulated from synthetic surfactants. Sika® Air Pak is packaged in water soluble bags to enable ease of addition and handling. It meets the requirements of BS EN 934-2.

#### USES

Sika® Air Pak allows for the production and the improvement of concrete to be placed in areas exposed to freezing conditions.

Sika® Air Pak is mainly used for the following applications:

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

#### CHARACTERISTICS / ADVANTAGES

Sika® Air Pak has the following characteristics:

- Consistent bubble size and spacing
- Increase in cohesion
- Provides improved rheology
- Less segregation and bleed
- Packaged in water soluble bags for easy dispensing

#### APPROVALS / STANDARDS

Conforms to the requirements of BS EN 934-2 Table 5 DoP 02 14 03 02 100 0 000216 1088, certified by Factory Production Control Body 0086, Certificate 541325, and provided with the CE mark

#### PRODUCT INFORMATION

<b>Chemical Base</b>	Powdered blend synthetic surfactants
<b>Packaging</b>	0.25Kg water soluble bag (60 bags = sealed tub)
<b>Appearance / Colour</b>	Pale Grey Powder
<b>Shelf Life</b>	12 months from date of production if stored properly in undamaged unopened, original sealed packaging.
<b>Storage Conditions</b>	Store in dry conditions at temperatures between +5°C and +25°C. Protect from direct sunlight and frost.
<b>Density</b>	~ 0.95Kg/Litre (loose bulk density)
<b>Total Chloride Ion Content</b>	< 0.1% w/w

## TECHNICAL INFORMATION

### Specific Advice

Equivalent Sodium Oxide as % Na<sub>2</sub>O w/w: <0.4%

## APPLICATION INFORMATION

### Recommended Dosage

1-4 Bags/m<sup>3</sup> (0.25Kg)

### 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® Air Pak required may vary to maintain a specific air content.

Important: Always conduct trials before combining products in specific mixes and contact our Technical Service Department for information and advice about any specific combinations.

### Dispensing

- Sika® Air Pak should not be added to the gauging water.
- Sika® Air Pak should preferably be added at the batching plant with the aggregate or cement to support dispersion.
- A wet mixing time, which is depending on the mixing conditions and mixer performance, of at least 120 seconds is recommended.
- When added directly to a truck mixer, the mixer shall rotate its drums at maximum revolutions for at least 1 minute per m<sup>3</sup> concrete and a minimum of 5 minutes to achieve a uniform mix.

## APPLICATION INSTRUCTIONS

### Application Method / Tools

- The standard rules of good concreting practice, concerning production and placing, are to be followed.
- Laboratory trials shall be carried out before concreting on site, especially when using a new mix design or producing new concrete components.

### Cleaning of Tools

Clean all tools and application equipment with water immediately after use. Hardened / cured material can only be removed mechanically.

### Notes on Application / Limitations

- When using Sika® Air Pak a suitable mix design has to be taken into account and local material sources shall be trialed.
- Sika® Air Pak is not suitable for use in concrete with <50mm slump, i.e. semi-dry/extruded concretes.
- 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)
- Overdosing may cause an excessive increase in air-entrainment that will lower the compressive strength.
- Support from our Technical Service Department is recommended.

commended.

## 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.

## 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.

## 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.

## 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-

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.

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