

PRODUCT DATA SHEET

SikaFume[®]-1 U

CONCRETE ADDITIVE

DESCRIPTION

SikaFume[®]-1 U is a concrete additive in powder form, based on Undensified Mirosilica
SikaFume[®]-1 U complies with ASTM C-1240

USES

SikaFume[®]-1 U is used in shotcrete, structural concrete, pre-cast concrete and other fields of concrete construction where high demands are imposed on the quality of fresh and hardened concrete

CHARACTERISTICS / ADVANTAGES

SikaFume[®]-1 U contains extremely fine (particle size < 0.1mm) latently reactive silicic dioxide. The presence of this substance imparts greatly improved internal cohesion and water retention in the fresh concrete.

The concrete becomes extremely pliable and pumpability is substantially improved. In the hardened concrete the latently reactive silica fume forms a chemical bond with the free lime (Ca(OH)₂). The additional formation of hydration products results in a significantly denser cement matrix

With the use of SikaFume[®]-1 U the concrete will show the following properties:

- High stability of green concrete
- Highly increased durability
- High early strengths
- Increased ultimate strengths
- Increased abrasion resistance
- Increased sulfate resistance
- Increased water tightness
- Increased gas tightness
- Reduced chloride penetration

PRODUCT INFORMATION

Chemical base	Precision monitored pozzolanic silica fume
Packaging	10 kg/500 kg bag
Appearance / Colour	Powder / Grey
Shelf life	24 months if stored properly in original unopened packaging
Storage conditions	Stored in dry conditions, protected from direct sunlight and at temperatures between +5 °C and +30 °C
Bulk Density	0.20 – 0.35 kg/ltr
Specific gravity	Approx. 2.15

TECHNICAL INFORMATION

Concreting Guidance	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
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when using a new mix design or producing new concrete components.
Fresh concrete must be cured properly and curing applied as early as possible

APPLICATION INFORMATION

Recommended Dosage	5 – 15% by weight of cement Typical 5% by weight of cement
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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.

ECOLOGY, HEALTH AND SAFETY

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

DISPENSING

SikaFume®-1 U is added with the cement and aggregates at the batching plant before the gauging water. Optimum wet mixing time: 90 seconds.

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 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

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