

PROVISIONAL PRODUCT DATA SHEET 2026-03-09

SikaFume® SF 100

Densified microsilica

DESCRIPTION

SikaFume® SF 100 is a compacted microsilica mineral admixture, formulated to produce extremely strong and durable concrete. SikaFume® SF 100 is a micro-filler material that physically fills the spaces between cement particles; It drastically decreases permeability and reduces the size and number of capillaries that allow contaminants to enter the matrix.

USES

- Steel-reinforced concrete structures or wet shotcrete applications, exposed to de-icing salts or sea salts carried by the wind.
- Any construction project that requires the protection provided by highly durable, low permeability concrete.
- Projects that require high resistance (high performance) concrete.

PRODUCT INFORMATION

Packaging	<ul style="list-style-type: none"> ▪ 20 kg bag ▪ 1,000 kg big bag
Shelf life	12 months from the date of production
Storage conditions	SikaFume® SF 100 is stored, handled and dosed similar to cement or fly ash. It can be stored in silos when in bulk. The packaged product should be stored in a dry area avoiding moisture.
Total chloride ion content	Does not contain chlorides. SikaFume® SF 100 admixture will not initiate or promote corrosion of reinforcing steel embedded in concrete, in prestressed concrete or concrete placed in galvanized steel roof and floor systems. No calcium chloride or intentionally added chloride-based ingredients have been added in the manufacture of SikaFume® SF 100.

FEATURES

- Greater cohesiveness of the mixture.
- Less exudation.
- Improved performance.
- Increase in the service life of the structure.
- Greater development of mechanical resistance.
- Greater modulus of elasticity.
- Lower permeability increasing durability.
- Greater resistance to sulfate attack.
- Greater resistance to the alkali-silica reaction.

CERTIFICATES AND TEST REPORTS

SikaFume® SF 100 meets the requirements of ASTM C 1240, Standard Specification for Microsilica Used in Concrete and Hydraulic Cement Mortar.

APPLICATION INFORMATION

Recommended dosage	It is recommended to use SikaFume® SF 100 for concrete or wet shotcrete applications in a dosage range of 5% to 15% by weight of cementitious material.
Compatibility	SikaFume® SF 100 additive can be used with portland cements approved under ASTM, AASHTO or CRD specifications. It is compatible with most concrete admixtures, including all Sika® admixtures. The use of SikaFume® SF 100 is recommended with high range water reducing admixtures, such as the Viscocrete® line, to obtain maximum workability, keeping the water-cement ratio low.
Dispensing	SikaFume® SF 100 is dosed and added in the concrete production plant in a similar way to cement or other cementitious materials such as fly ash. It can be dosed in a central mixer or mixer truck.

SYSTEM INFORMATION

System structure	SikaFume® SF 100 is a micro-filler material that physically fills the spaces between cement particles; It drastically decreases permeability and reduces the size and number of capillaries that allow contaminants to enter the matrix. Compared to pozzolan, SikaFume® SF 100 microsilica reacts chemically within the cement matrix to increase the amount of hydrated calcium silicate (CSH gel) that is formed. CSH gel is the adhesion agent that holds the matrix of a cementitious mixture together in its hardened state. Additional CSH gel increases strength and decreases permeability.
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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.

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

MIXING

SikaFume® SF 100 is dosed and added in the concrete production plant in a similar way to cement or other cementitious materials such as fly ash. It can be dosed in a central mixer or mixer truck.

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 exact product data and uses.

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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ISO 9001, 14001, 45001 – SGS:
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- Sika International Chemicals LLC
- Sika Gulf B.S.C. (c)
ISO 9001, 14001 – SGS:
- Sika Saudi Arabia Limited
ISO 9001, 14001 – TÜV:
- Sika UAE LLC (Branch)
ISO 9001 – SGS:
- Sika MB LLC

All products are supplied under a management system certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001, ISO 14001 and ISO 45001.



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