

PRODUCT DATA SHEET

SikaFume® DS

DENSIFIED SILICA FUME

DESCRIPTION

SikaFume® DS is a concrete additive in powder form based on silica fume technology. It is used as a high effective additive for the production of high quality concrete.

USES

SikaFume® DS is used in :

- High performance concrete
- Structural concrete
- Precast concrete
- Shotcrete applications

And other fields of concrete construction where great demands are required on the durability and quality of fresh and hardened concrete.

CHARACTERISTICS / ADVANTAGES

SikaFume® DS contains extremely fine (0.15µm) latently reactive silicon dioxide. The presence of this substance gives following advantages:

- Improved internal cohesion
- Water retention and increased density when set
- Improved pumping properties
- Improved durability
- Improved water tightness
- Improved surface finish
- Increased resistance to abrasion
- Reduced chloride diffusion
- Improved ultimate strength

SikaFume® DS contains no chloride or other potentially corrosive substances.

APPROVALS / STANDARDS

IS 15388, ASTM C1240

PRODUCT INFORMATION

Chemical Base	SiO ₂ content	> 85%
	Alkalies as Na ₂ O	< 1.5 %
	Loss on ignition	< 4 %
	Moisture content	<3 %
	Specific surface area	>15 m ² /gm
Packaging	20 kg bag	
Appearance / Colour	Grey to dark grey powder	
Shelf Life	24 months from date of production if stored properly in undamaged unopened, original sealed packaging.	
Storage Conditions	Store in dry conditions at temperatures between +5°C and +40°C. Protect from direct sunlight and frost.	
Bulk Density	> 500 kg/m ³ Densified	

APPLICATION INFORMATION

Recommended Dosage	3%-15% by weight of cement. The correct dosage for the required properties must be determined by preliminary testing. For optimum result in concrete, always use in conjunction with a superplasticizer or retarder.
Compatibility	Important: Always conduct trials before combining products in specific mixes and combinations. Compatible with all types of cement and cementitious materials.

APPLICATION INSTRUCTIONS

DISPENSING

In order to achieve proper dispersion of SikaFume® DS and to maximize the mix consistency and admixture performance it should be dispersed together with sand and aggregates. Then 70-80% of water to be added. The remaining water and admixture is added after all the cement has been dispensed.

LIMITATIONS

Due to fineness of SikaFume® DS it is important to properly mix all the components. Additional mixing time is required to achieve homogeneous mix. Load sizes should be limited to 80% of the mixer capacity.

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.

LOCAL RESTRICTIONS

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 Material Safety Data Sheet 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 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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