



PRODUCT DATA SHEET

SikaFume[®]-225

COLLOIDAL SILICA DISPERSION USED PRIMARILY FOR CONTROL OF BLEEDING AND SEGREGATION AND TO ENHANCE DURABILITY.

PRODUCT DESCRIPTION

SikaFume[®]-225 is a liquid-based colloidal silica concrete additive that increases the internal cohesion of all types of concrete, considerably improving the durability, impermeability, and resistance to segregation. It contains no chlorides and exerts no corrosive action on steel reinforcement. It performs exceptionally well as a stabilizer and durability enhancer.

WHERE TO USE

- In Shotcrete when used with Sigunit Admixtures SikaFume[®]-225 acts as a stabilizer improving the sprayability and pumpability characteristics, it reduces rebound and increases maximum thickness build-up.
- When used in Self-consolidating concrete and precast, SikaFume[®]-225 can be used to enhance rheological properties in combination with Sika Viscocrete.
- On concrete where higher impermeability, chemical resistance and durability is required.
- On pumped concrete or mortar.

CHARACTERISTICS / ADVANTAGES

- Thanks to its chemical composition and small particle size, it increases the internal cohesion of concrete, thus increasing its impermeability, durability and resistance
- Increases adhesion between particles
- Reduces the depth of water penetration to levels below 30 mm; eliminates free water and reduces bleeding
- Improves surface finish of concrete
- Improves pumpability and workability of concrete
- Colourless; therefore, does not modify colour of concrete
- In shotcrete, allows for the application of thicker layers per pass, due to reduced loss and rebound.
- Reduces dust in shotcrete work
- Chloride-free

PRODUCT INFORMATION

CSC MasterFormat [®]	03 05 00
Packaging	208 Litre Drums 1040 Litre Totes
Shelf Life	12 months from date of manufacture if stored in original, unopened and undamaged sealed container protected from moisture, and at temperatures between 5 - 35 °C (40 - 95 °F).
Storage Conditions	Protect from direct sunlight and from freezing.
Appearance / Colour	Colourless liquid

Density 1.2

pH-Value 10

APPLICATION INFORMATION

Recommended Dosage Dosage rates will vary according to materials used, ambient conditions and the requirements of a specific project. Typical dosages range from 500 to 1500 mL/100 kg of cementitious materials. Contact your Sika Representative for further information. Lab testing should be completed prior to use to confirm specific dosage for desired performance.

Mixing SikaFume®-225 should be added to the fresh concrete after all other mix ingredients have been blended together. For best results, the concrete should be prepared in a concrete mixer that can thoroughly shear the materials and blend all of the components. SikaFume®-225 may also be dispensed into freshly mixed concrete in a ready-mix truck at the concrete plant with the tail water. (never add directly to dry materials) SikaFume®-225 has little or no effect on slump or air. For best results SikaFume®-225 should be used in conjunction with Sika Viscocrete. Do not use Naphthalene based HRWR. Do not use with low Alkali cements. Use with mix designs with greater than 0.35 W/C ratios.

BASIS OF PRODUCT DATA

Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods.

FURTHER INFORMATION

CLEAN UP

Use personal protective equipment (chemical resistant goggles/gloves/clothing). Without direct contact, remove spilled or excess product and place in suitable sealed container. Dispose of excess product and container in accordance with applicable environmental regulations.

LIMITATIONS

- For best results, it is preferable to mix SikaFume®-225 with turbine mixers and central mix plants. Such mixing equipment often perform better than dry-batched transit mixers.
- Addition of the SikaFume®-225 directly into the concrete too early may promote clumping of the mix.
- Insufficient mixing or use of less than recommended quantities of SikaFume®-225 may result in a concrete mix that is more likely to bleed or separate.

ENVIRONMENT, HEALTH & 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.

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 recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. 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 or may be downloaded from our website at: www.sika.ca

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Product Data Sheet

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