



PRODUCT DATA SHEET

Sikacrete[®]-950 DP

SILICA-FUME DENSIFIED, DRY POWDER ADMIXTURE FOR CEMENT CONCRETE AND MORTARS

PRODUCT DESCRIPTION

Sikacrete[®]-950 DP is a densified dry powder microsilica admixture for Portland cement-based concrete and mortars. Sikacrete[®]-950 DP is a pozzolanic material that consists primarily of fine silicon dioxide particles in a non-crystalline form. Silica fume particles have a diameter of less than 1µm; about 100 times smaller than the average cement particle, that chemically reacts with the free lime Ca (OH) in the cement paste and results in the formation of calcium silicate hydrate (CSH) gel, the binder that holds together the constituents and fills voids in concrete.

WHERE TO USE

- All high performance, high strength applications
- Concrete required to resist water and chemical ingress
- All concrete which is required to resist mechanical abrasion

PRODUCT INFORMATION

CSC MasterFormat [®]	03 05 00
Packaging	11.4 kg (25 lb) bag 1000 kg (2200 lb) FIBC * Bulk delivery <i>*Flexible Intermediate Bulk Container</i>
Appearance / Colour	Powder / Grey
Shelf Life	Unlimited in original and unopened packaging.
Storage Conditions	Store in dry conditions at temperatures above +2 °C (35 °F)
Specific Gravity	Approx. 2.19 - 2.29 kg/L

CHARACTERISTICS / ADVANTAGES

- Produces concrete with considerably increased compressive and flexural strengths
- Allows greater design flexibility and structural design economies
- Reduced permeability to increase the service life of the concrete
- Excellent abrasion and erosion resistance increases concrete durability in hightraffic areas
- Resistance to sulphate and chloride water-borne chloride and de-icing salt generated corrosion
- Excellent freeze/thaw resistance due to filling of voids and capillaries
- Does not contain calcium chloride nor any other intentionally added chloride containing ingredients

APPROVALS / CERTIFICATES

Meets the requirements of ASTM C1240

APPLICATION INFORMATION

Recommended Dosage

Dosage rates are typically between 5 % and 15 % by weight of cement. It is strongly recommended that trial batches be produced using project-specific materials in order to determine the optimum dosage to achieve specified requirements.

Compatibility

Sikacrete®-950 DP is compatible with all known portland cements manufactured under ASTM specifications.

Mixing

Mixing / Dispensing:

Sikacrete®-950 DP may be stored in bulk storage in a cement silo and be batched in the same manner as bulk cement. When using Sikacrete®-950 DP in 11.4 kg (25 lb) packaging, note that the bags are repulpable/shreddable and intended to be added directly to central or truck mixer without opening. The bags are designed to disintegrate through a combination of wetting and grinding the paper during concrete mixing. Specific batching and mixing instruction procedures for central and truck mixing as outlined in the *Silica Fume Association Users Manual* and ASTM C94/C94M must be followed.

Workability and Finishing:

Microsilica may affect the finishing characteristics of the concrete, particularly where warmer ambient conditions are encountered. The amount of bleed water from the concrete also may be reduced and Sika recommends the use of a finishing aid and evaporation retarder such as SikaFilm® to aid finishing

Restrictions

- Do not introduce repulpable bags into concrete mixes with low water cementitious ratios and smaller size aggregates as these mixes may not develop sufficient mixing energy to fully dissolve the bags. Always determine repulpability of bags by pretesting mix designs and batch sequence. Contact your local Sika representative for more information and assistance.
 - The low water cement ratios typically specified for concrete containing microsilica make the use of a high range water reducer, such as a ViscoCrete® or Sikament® product essential in most applications. Sika recommends the use of Sika® air entraining admixtures where air entrained concrete is required.
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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.

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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