

**Product Data Sheet**

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Sikacrete® 950 DP

**Sikacrete® 950 DP****Silica-Fume Densified, Dry Powder Admixture for Cement Concrete and Mortars**

**Description** Sikacrete® 950 DP is a densified dry powder microsilica admixture for Portland cement based concrete and mortars. It is a pozzolanic material 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 concrete.

**Where to Use**

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

**Advantages**

- Produces concrete that has dramatically 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 high-traffic 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.

**Standards** Meets the requirements of ASTM C1240.

**Typical Data****Packaging**11.4 kg (25 lb) bag  
Bulk delivery**Colour and Form**

Grey powder

**Shelf Life and Storage**

Unlimited in original and unopened packaging. Store in dry conditions at above 2°C (35°F)

**Properties at 23°C (73°F) and 50% R.H.****Specific Gravity**

Approx. 2.19 - 2.29 kg/L

**How to Use**  
**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.

Sikacrete® 950 DP may be stored in bulk storage in a cement silo and be batched in the same manner as bulk cement.

**Note:** All Sikacrete® 950 DP bags do not dissolve. Those that do not, must not be introduced into the concrete mix.

**Mixing**

The following mixing sequence is recommended for the manual introduction of microsilica into a concrete mix:

Add the coarse aggregate, fine aggregate, 75% of the mix water, and water reducing and air entraining admixtures into the mixing vessel. Mix for 50 revolutions.

Add the cement with the microsilica batched on top. Follow this with high range water-reducing admixtures, and the remaining mix water as needed. Mix for at least 100 revolutions at 15+ rpm.

Where low water/cement ratio mixes and smaller size aggregates are used, mixing must be increased to at least 150 revolutions.

Do not introduce dry or slurry microsilica into a mixing vessel without aggregates and water already being in it, as this may cause the microsilica to ball and not disperse throughout the concrete.



When dissolvable ('reputable') bags are used the following mixing sequence must be followed:

Place dissolvable bags into the mixing vessel, followed immediately by coarse and fine aggregates and a minimum of 75% of the mix water. Mix for at least 100 revolutions at 15 + rpm.

Add cement, admixtures and remaining water as required. Mix for an additional 100 revolutions.

The above sequence is essential as the bags need the extra energy provided by the aggregate/water combination to aid in their disintegration.

Please note that the dissolvable bags are not recommended for introduction into concrete mixes with low water/cement ratios and smaller size coarse aggregates as these mixes may not develop sufficient mixing energy to fully disintegrate the bags.

Please contact your Sika Canada Technical Sales Representative for further information.

**Compatibility with cement and other Admixtures:** Sikacrete® 950 DP is compatible with all known Portland cements manufactured under ASTM specifications. The low water/cement ratios typically specified for concrete containing microsilica make the use of a high-range water-reducer, such as a Sikament® product, essential in most applications. Sika recommends the use of Sika® air entraining admixtures where air entrained concrete is required.

**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 Sika® Film to aid finishing.

**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.

**Health and Safety Information**

For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the **most recent Material Safety Data Sheet** containing physical, ecological, toxicological and other safety-related data.

KEEP OUT OF REACH OF CHILDREN  
FOR INDUSTRIAL USE ONLY

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, within their shelf life. 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 proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users should always refer to the most recent issue of the Product Data Sheet for the product concerned, copies of which will be supplied on request or can be accessed in the Internet under [www.sika.ca](http://www.sika.ca).

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