Product Data Sheet
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Construction

Sika Fume® -HR

Concrete Additive

Product Description

Sika Fume® -HR is a concrete additive of a new generation in powder form, based on Sika silicafume® technology.

Uses

Sika Fume® -HR is used in structural concrete, precast concrete and other fields of concrete constructions where high demands are imposed on the quality of fresh and hardened concrete.

Advantages

Sika Fume® -HR contains extremely fine (0.1 µm) latently reactive silicon dioxide The presence of this substance imparts greatly improved internal cohesion and water retention. The concrete becomes extremely soft and pumping properties are substantially improved. In the set concrete the latently reactive silica fume forms a chemical bond with the free lime.

The additional crystal formation produces a significantly more dense set cement matrix.

When additionally using Sikament® super plasticizer, the concrete will show the following properties:

- Excellent workability
- Increased durability
- High early strengths
- Increased ultimate strengths
- Increased resistance to abrasion
- Highly increased water tightness
- Highly increased gas tightness
- Highly reduced chloride diffusion
- Chloride free - does not attack any reinforcement

Technical Data

Composition	A latently hydraulic blend of active ingredients
Appearance / Colour	Grey powder
Bulk Density	300 kg/m^3
Packaging	25 kg bags Special packs and bulk silo deliveries also available on request.
Storage	Sika Fume® -HR is not affected by frost. It must be stored in dry conditions.
Shelf life	24 months from date of production if stored properly in original unopened packing.

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Application

Dosage

2 - 10 % by weight of cement. For optimum results in concrete, always use in conjunction with Sikament® products range.

Mixing

Sika Fume® -HR is added with the cement to the concrete at the batching plant before the gauging water. Optimum mixing time 90-seconds.

The quantity of water should be adjusted to suit the dosage of Sika Fume®, Sikament® and the final consistency required.

Important Note

Sika Fume® -HR concrete should be handled and placed in the same way as conventional mixes. Standard good concrete practice should be observed throughout, and proper curing procedures should be initiated immediately after placement.

Safety Instructions

Safety Precautions

Wear a face mask against dust if there is heavy dust development.

Accidental splashes to the skin must be washed off with water and soap.

Accidental splashes to the eyes or mucous membrane must be rinsed with clean warm water. Seek medical attention without delay.

Ecology

Residues of material must be removed according to local regulations.

Fully cured material can be disposed of as household waste under agreement with the responsible local authorities.

Transport

Non-hazardous

Toxicity

Non-Toxic under relevant health and safety codes.

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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