

PRODUCT DATA SHEET

Sikacrete® PP1 (D)

MINERAL ADMIXTURE

DESCRIPTION

Sikacrete® PP1 (D) is a concrete admixture of the new generation in powder form, based on the Sika Silica Fume Technology.

USES

Sikacrete® PP1 (D) is used in structural concrete, precast processes, and other fields of concrete constructions to increase the density, durability and compressive strength of concrete.

CHARACTERISTICS / ADVANTAGES

Sikacrete® PP1 (D) contains extremely fine (0.1 µm) latently reactive silicone dioxide. The presence of this substance gives greatly improved internal cohesion and water retentivity. The concrete becomes extremely soft and the pumping properties are substantially improved. In the hardened concrete the latently reactive silica fume forms a chemical bond with the free lime. The additional crystal formation produces a significantly more dense cement matrix.

Sikacrete® PP1 (D) is used in combination with Sika-ment® superplasticizer, the performance characteristics of concrete will be improved in the following ways :

- Increased workability over a longer period of time
- Green concrete exhibits excellent stability
- Durability is greatly increased
- Water permeability of set concrete is much reduced
- Vapour permeability is much decreased
- High resistance to carbonation
- Infiltration of chlorides is very much reduced
- Very high early and ultimate strengths
- Reduced deterioration of migration due to chloride and sulphate reaction

Sikacrete® PP1 (D) does not contain chlorides, nor other potentially corrosive substances. It, therefore can be used with complete safety in steel or fibre-reinforced and prestressed concrete.

APPROVALS / CERTIFICATES

Complies with ASTM C1240 - standard specification for silica fume used in cementitious mixtures.

PRODUCT INFORMATION

Packaging	20 kg/ bag
Appearance / Colour	Grey powder
Shelf life	12 months from the date of production If stored properly in undamaged, original, sealed packaging.
Storage conditions	Keep in unopened, undamaged original packaging and protected from direct sunshine in dry condition.
Density	Approx. 2.2 kg/l (at 25°C)
Bulk Density	0.60 ± 0.1 kg/l

APPLICATION INFORMATION

Recommended Dosage	3-10% by weight of cement.
Dispensing	Sikacrete® PP1 (D) is added to the dry ingredients at the batching/mixing plant prior the adding of the gauging water. A mixing time of 90 seconds is recommended to ensure uniform dispersion of Sikacrete® PP1 (D) throughout the mix. The amount of water added should be adjusted according to the dosage of Sikacrete® PP1 (D), Sikament® and the final required consistency. Other Sika concrete admixtures might be incorporated as well, if required for special performance characteristics. Concrete modified with Sikacrete® PP1 (D) should be placed in the same way as normal concrete of moderate to high-slump consistency. Where Sikacrete® PP1 (D) is used, the concrete mix must be prepared and placed in accordance with the standard rules of high durability concrete practice, and proper curing procedures must be initiated immediately after placement.

IMPORTANT CONSIDERATIONS

Sikacrete® PP1 (D) is a product designed for use for special purpose concretes (such as waterproof/high durability concrete). For advice on specific applications, please consult our Technical Department.

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

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

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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