

# **PROTECT HFS**

Item No 2530

Hydrophobic admixture with efflorescence decreasing effects

# FIELDS OF APPLICATION

PROTECT HFS is a hydrophobic admixture for mineral-based building materials and especially suitable for producing semi-dry concrete.

PROTECT HFS generates a hydrophobic concrete structure during the production process. As a result the water penetration in hardened concrete is minimised. Thereby the occurrence of efflorescence is reduced and the frost resistance is significantly improved. Consequently, PROTECT HFS makes a contribution to producing durable and sustainable concrete.

PROTECT HFS optimises concrete's texture and allows an even and intensive colouring.

# **DOSAGE**

Recommended dosage range 1.0-4.0 mass-% of the cement content; is equivalent to 10-40 ml per kg cement.

## **WORKING PRINCIPLE**

PROTECT HFS generates a hydrophobic capillary system and thereby reduces the water absorption abilities of concrete.

The surface active substances improve the wetting of the cement particles which increases the homogeneity of concrete and allow a closed surface appearance.

# **TECHNICAL DATA**

Homogeneity	homogenous
Colour	white
State	liquid
Density	1.00 ± 0.02 g/cm <sup>3</sup>
pH-value	6 ± 1
Workability	from +1 °C
Shelf life	approx. 1 year from date of production if stored properly
Storage conditions	Store in unopened, original sealed packag- ing between +5 °C and +25 °C. Protect from frost and insolation.



#### PROCESSING INDICATIONS

Agitation or circulation is recommended before the product is firstly used and after an undisturbed period.

PROTECT HFS should be added either contemporaneously with the tempering water or to the readymixed concrete batch.

The mixing time should be 60 seconds at least.

In order to ensure compatibility with other admixtures, pre-tests should be performed.

Note: Changes in cement sort, water/cement ratio etc. might lead to colour variations in concrete.

This product is not classified as hazardous according to the CLP regulations. See safety data sheet for further information.

## **PACKAGING**

- 30 l can
- 200 l barrel
- 1000 I container

## **REMARKS**

This information describes the application- and processing possibilities of a product and its operation principles under regular conditions. Having no influence on the further application and processing, especially in conjunction with other construction materials, the given indication are neither a warranty in respect of the product's properties or its fitness for a particular purpose nor a full instruction of use. This information, any other recommendation or verbal advice are not binding and do not infer to any liability or legal demand.

Due to continuous further development, the most recent Technical Data Sheet is valid and will be supplied on request. All orders are accepted subject to our current general terms and conditions.

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SUITABILITY- AND PRE-TESTS ARE NECESSARY BEFORE APPLYING THE CONCRETE ADMIXTURE!