

Nafufill SC 08

Microsilica-modified repair shotcrete

Product Properties

- One-component, only to be mixed with water
- Application by dry spraying technique or by hand on horizontal surfaces
- Highly sulphate resistant, low active alkali content
- High carbonation resistance
- Resistant to temperature, frost-thaw and de-icing salts
- Open to water vapour diffusion and impermeable to water
- Non-flammable according to EN 13501-1 - building material class A1
- Class R3 according to EN 1504 part 3

Areas of Application

- Dry sprayed concrete for repair of wall- and overhead areas in civil engineering and industrial construction
- Suitable for repair of large-scale and deep ruptures
- Suitable for creation of supporting walls and reinforcement of existing constructions
- Suitable for creation of levelling layers on horizontal areas
- According to EN 206 suitable for exposure classes XC 1-4, XF 1-4, XS 1, XD 1-3 and XA 1-3
- Certified according to EN 1504 part 3 for principle 3 and 7, procedure 3.1, 3.3, 7.1 und 7.2

Application

Substrate preparation

See leaflet "General Application Advice Coarse Mortars/Concrete Replacement Systems".

Pre-wetting

Prior to application of Nafufill SC 08 the substrate must be pre-wetted thoroughly. If the concrete parts are dried out completely, pre-wetting should start one day prior to application. A closed water film must be avoided. When beginning to apply the substrate should be slightly damp but not saturated with water.

Application / Dry spraying technique

The water intake of the nozzle's mixing unit is to be adjusted to achieve a homogeneous and dust-free repair shotcrete. The spray angle between spray nozzle and substrate must be 90°. The distance of the nozzle to the substrate must be 0.5 - 1.0 m. Angle and distance may be adjusted when spraying behind reinforcement.

Hand application

On horizontal areas Nafufill SC 08 can be applied by hand. Forced mixers or slowly rotating double-

mixers must be used for mixing. Mixing takes 3 minutes. Mixing by hand or preparation of partial quantities is not permitted. For a 25 kg bag of Nafufill SC 08 approx. 2.25 to 2.5 litres of water are required. To ensure an even layer thickness height gauges should be used. All joints in the substrate must be taken on into the concrete replacement. At junctions of floor and wall a joint must be formed.

Finishing

Following application Nafufill SC 08 can be smoothed and finished using a wooden or plastic float.

Curing

Nafufill SC 08 must be cured for 5 days using moist jute and plastic foil. The jute must not dry out during this time and must be kept moist. Alternatively a liquid curing agent may be used.

Additional information (bond coat)

For hand application Nafufill BC is to be used as bond coat. See leaflet "General Application Advice Coarse Mortars/Concrete Replacement Systems".

Technical Data for Nafufill SC 08

Characteristic	Unit	Value*	Comments
Largest grain size	mm	8	
Fresh concrete density	kg/dm ³	2.31	
Flexural tensile-/ compressive strength	N/mm ²	4.9 / 38.8 5.7 / 43.7	after 7 days after 28 days
Shrinkage	mm/m	0.39	after 28 days
Static E-Modulus	N/mm ²	37,000 33,000	after 28 days (spray application) after 28 days (hand application)
Coverage (dry concrete)	kg/m ² /mm	2.10	+ rebound
Finishing time	minutes	20 - 30	at + 20 °C
Layer thickness	mm	30 60 120	minimum layer thickness per work step maximum layer thickness per work step maximum total layer thickness
Application conditions	°C	≥ 5 to ≤ 35	air-/material-/substrate temperature
Mixing ratio (hand application)	p.b.w.	100 : 9 - 10	Nafufill SC 08 : water

Product Characteristics for Nafufill SC 08

Colour	cement-grey
Delivery	25 kg bags
Storage	Can be stored in cool and dry conditions for 12 months in originally sealed packs.
Disposal	Packs must be emptied completely.

* All technical values are lab values and have been determined at + 23 °C and 50 % relative humidity.

** In sprayed quality the 28-days-compressive strengths correspond to class C 55/67.

Note: The information on this data sheet is based on our experiences and correct to the best of our knowledge. It is, however, not binding. It has to be adjusted to the individual structure, application purpose and especially to local conditions. Our data refers to the accepted engineering rules, which have to be observed during application. This provided we are liable for the correctness of this data within the scope of our terms and conditions of sale-delivery-and-service. Recommendations of our employees which differ from the data contained in our information sheets are only binding if given in written form. The accepted engineering rules must be observed at all times.

Edition 05/19. Some technical changes have been made to this print medium. Older editions are invalid and may not be used anymore. If a technically revised new edition is issued, this edition becomes invalid.