



Nafufill® KM 250DS-IN

Dual Shrinkage compensate, Fibre-reinforced PCC/SPCC concrete replacement for Structural Repair.

Product Properties

- One -Component with Dual Shrinkage Compensation Properties
- Hand and wet spray application
- Statically allowable
- High Carbonation resistance
- Resistance to de-icing salts, chloride-proof
- Class R4 according to EN 1504 part 3

Areas of Application

- Concrete replacement for the repair by SPCC / PCC-areas for relevant and irrelevant for structural integrity, vertical, overhead, dynamically and non-dynamically loaded structure application.
- Suitable for the SPCC / PCC application in Tunnels, Industrial buildings, Dock yard, bridges, water retaining structures etc.
- Suitable exposure classes acc to DIN 1045-2/EN 206-1/EN-1992-1: XO, XC1-XC4, XD1-XD3, XS1-XS3, XF1-XF4, XA1-XA3
- Repair and anode embedding mortar according to EN 12696 for repair principle "Cathodic corrosion Protection of steel in Concrete"

Application

Substrate Preparation

The repaired surface should be free from any unsound material and should be free from any contaminations. Before application of **Nafufill® KM 250DS-IN** the prepared surface should be in Saturated surface dry condition. See leaflet "General Application Advice Coarse Mortars/Concrete Replacement Systems" for getting further surface preparation instructions.

Reinforced Steel

The existing corrosion of the reinforcement should be completely removed as per EN ISO 12944. The reinforcing steel should be De-rusted to achieve the degree of blasting SA2. See leaflet "General Application Advice Coarse Mortars/Concrete Replacement Systems". MC Bauchemie Range Corrosion protection system should be recommended for corrosion protection.

Pre-Wetting

Before **Nafufill® KM 250DS-IN** is applied the substrate must be pre-wetted thoroughly. If the concrete parts are completely dried out, pre -wetting should be no standing water on the surface. When beginning to apply the surface should be slightly damp, but not saturated with water.

Bond coat

For hand application Nafufill® KMH or MC Solid Range Bonding Agents has to be used as bonding coat.

Mixing

Nafufill® KM 250DS-IN is added to the water under constant stirring and mixed until a homogeneous, lump free and workable mortar is achieved. Forced action mixers or slowly rotating double mixers must be used for mixing. Mixing by hand and preparation of partial quantities is not allowed. Mixing takes at least 5 minutes.

Application

Nafufill® KM 250DS-IN can be applied by hand or wet spraying. The material may be applied in one or more layers. A worm pump with adjustable discharge flow is advised for spray application. Please request our assistance or our spraying technique equipment planner leaflet.

Finishing

After application of **Nafufill® KM 250DS-IN** may be smoothed and finished with a wooden or plastic float or with a porous sponge rubber squeegee.

General Information

For Information on equipment technology, compressor, rebound, supportive casting and application conditions, see leaflet "General Application Advice Coarse Mortars/Concrete Replacement Systems".

Curing

Nafufill® KM 250DS-IN must be prevented from drying out too rapidly and protected from direct sunlight and wind. Curing generally takes 3 days.

**Technical Data for Nafufill® KM 250DS-IN**

Characteristic	Unit	Value	Comments
Grain Size	mm	3 max	
Added Water	Liter %	4.5– 5.1 15 – 17	Per 30 kg Bag
Fresh Mortar density	Kg/m ³	2090	For PCC
Compressive Strength ASTM C-109 (50mm Cube)	N/mm ²	30 42 55	After 48 hours for PCC After 7 Days for PCC After 28 Days for PCC
Flexural Strength	N/mm ²	>5	After 28 Days for PCC
Finishing Time	Minutes	20 – 30	At +25° C
Application Conditions	°C	≥+5 - ≤+35	Air and substrate temperature
Tensile strength	N/mm ²	>1.5	After 28 Days
Carbonation Depth	mm	0	After 90 Days
Layer Thickness	mm mm mm mm	10 25 50 80	Minimum layer thickness per work step Maximum layer thickness per work step Maximum total layer thickness Reprofiling of disruptions

Product Characteristics for Nafufill® KM 250DS-IN

Type of Product	Polymer cement Concrete
Form	Gray Powder
Shelf Life	9 Months from date of Manufacture if stored in Unopened Packaging. Protect from Rain, Direct Sunlight, Heat and Frost
Delivery	30 kg sacks
Disposal	Empty packs completely and dispose off carefully to protect our Environment

Safety Advice

Please Take notice of the safety information and advice given on the packaging labels, safety information sheets and General Application Advice.

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 binding if given in written form. The accepted engineering rules must be observed at all times.

Edition: - MC/IND/R0/AUG2020, 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.