

# Nafufill KM 250 HS

Fibre-reinforced, highly sulphate-resistant PCC concrete replacement

## Product Properties

- One-component, polymer-modified
- Hand and wet spray application
- Tricalciumaluminate-free binder
- Low alkali-content
- Highly resistant to carbonation and de-icing salt
- Chloride-proof
- Class R4 according to EN 1504 part 3

## Areas of Application

- Concrete replacement for repair of interior and exterior areas in new and existing structures
  - Concrete replacement for concrete components in contact with groundwater and soil
  - Suitable according to EN 206 for exposure classes XC1-4, XF1-4, XD1-3, XS1-3, XA 1-3, XW1-2, XM1, X0, XALL, XDYN, XSTAT and XBW
- Certified and classified acc. to EN 1504 part 3 for principles 3, 4 and 7, procedure 3.1, 3.3, 4.4, 7.1 and 7.2

## Application

### Substrate Preparation:

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

### Bond Coat:

Nafufill KMH should be used as bonding coat. See leaflet "General Application Advice Coarse Mortars / Concrete Replacement Systems".

### Mixing:

Nafufill KM 250 HS is added to the water under constant stirring and mixed until a homogenous, 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.

### Mixing Ratio:

Please see "Technical Data" table. For a 25 kg pack of Nafufill KM 250 HS approx. 3.75 - 4.00 litres of water are required. As with other cement-bound products the quantity of added water may vary.

**Application:** Nafufill KM 250 HS 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 Nafufill KM 250 HS may be smoothed and finished with a wooden or plastic float or with a porous sponge rubber squeegee. At the transition area edge of damaged spot / concrete the freshly applied mortar must be treated that subsequent products can be applied without problems.

**Curing:** Nafufill KM 250 HS must be prevented from drying out too rapidly and protected from direct sunlight and wind exposure. Curing usually takes 3 days.

### Technical Data for Nafufill KM 250 HS

| Characteristics                            | Unit                  | Value        | Comments                                       |
|--|-----------------------|--------------|--|
| Max. Grain size                            | mm                    | 2.0          |  |
| Dry bulk density                           | kg/dm <sup>3</sup>    | 1.9          |  |
| Mixing ratio                               | p.b.w.                | 100: 15 - 16 | powder component: water                        |
| Working time                               | minutes               | 55           | at 20°C  |
|  |                       | 45           | at 30°C  |
| Application conditions                     | °C                    | ≥ 5 ≤ 30     | air, substrate and material temperatures       |
| Consumption Dry mortar                     | kg/m <sup>2</sup> /mm | 1.75         |  |
| Flexural strength                          | N/mm <sup>2</sup>     | 6            | 7 days   |
|  |                       | 7.3          | 28 days  |
|  |                       | 40           | 7 days   |
|  |                       | 58           | 28 days  |
| Compressive strength                       | N/mm <sup>2</sup>     | ~25.000      | 28 days  |
|  |                       |              |  |
| E-modulus (dynamic)                        | N/mm <sup>2</sup>     | ~25.000      | 28 days  |
| Layer thickness<br>as a reprofiling mortar | mm                    | 6            | <i>Min. layer thickness</i> per pass/operation |
|  |                       | 30           | <i>Max. layer thickness</i> per pass/operation |
|  |                       | 60           | <i>Max. total layer thickness</i>              |
|  |                       | 100          | <i>as a reprofiling mortar</i>                 |
| Carbonization depth                        | mm                    | 0            | EN 13295:2004 after 90 days                    |
| Sulphate resistance                        | mm/m                  | 0.04         | DIN 19573:2016-03, Annex C (expansion)         |
| Fresh mortar bulk density                  | kg/dm <sup>3</sup>    | 2.0          |  |
| Shrinkage                                  | mm/m                  | 0.95         | 28 days  |

### Product Characteristics for Nafufill KM 250

|                    |  |
|--------------------|--|
| Form               | Pulverous  |
| Colour Shade       | Cement grey  |
| Delivery Form      | Sack goods @ 25 kg & 20 kg   |
| Storage            | Can be stored in original sealed packages at temperatures between 5°C and 30°C in dry conditions for at least 12 months. |
| Packaging Disposal | Make sure single-use containers are completely empty. Ensure compliance with our information leaflet                     |

#### Safety Advice

Please take notice of the safety information and advice given on the packaging labels and safety information sheets.

**Note:** The information contained in this data sheet is based on our experience and is correct to the best of our knowledge. It is, however, not binding. It will need to be adapted to the requirements of the individual structure, to the specific application and to non-standard local conditions. Application-specific conditions must be checked in advance by the planning engineer/specifier and, where different from the standard conditions indicated, will require individual approval. Technical advice provided by MC's specialist consultants does not replace the need for a planning review by the client or its agents in respect of the history of the building or structure. Subject to this prerequisite, we are liable for the correctness of this information within the framework of our terms and conditions of sale and delivery. Recommendations of our employees deviating from the information given in our data sheets are only binding for us if they are confirmed in writing. In all cases, the generally accepted rules and practices reflecting the current state of the art must be observed. The information given in this technical data sheet is valid for the product supplied by the country company listed in the footer. It should be noted that data in other countries may differ. The product data sheets valid for the relevant foreign country must be observed. The latest technical data sheet shall apply to the exclusion of previous, duly superseded versions; the date of issue in the footer must be observed. The latest version is available from us on request or may be downloaded from our website. [2100005262]

**Edition 12/23.** 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.