



# Nafufill KM 103

## Fine mortar for levelling of concrete surfaces

### Product Properties

- One-component, polymer-modified
- Hand and spray application
- High water retention
- Resistant to de-icing salt and temperature changes
- May also be used as scratch coat as well as pore and cavity filler
- Can be overcoated with Betonflair WG, Nafufill BS and EmceColor-flex E after approx. 3 hours
- Tested and approved according to ZTV-ING TL/TP BE PCC and DIN V 18026, as OS 4 and OS 5a system
- Class R2 according to EN 1504 part 3

### Areas of Application

- PCC fine filler for non-accessible and non-driven-on concrete components, both interior and exterior
- Closing of pores, blow holes and surface roughness
- Principle 3; procedure 3.1 and 3.3 (EN 1504-9)

### Application

#### Substrate Preparation

See leaflet "General Application Advice for Fine Fillers".

#### Mixing

Nafufill KM 103 is added to the water under constant stirring and mixed until homogenous and lump-free. Forced 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 refer to the "Technical Data" table. For a 25 kg pack of Nafufill KM 103 approx. 4.25 to 4.50 litres of water are required. As with other cementitious products the quantity of added water may vary.

#### Application

Nafufill KM 103 can be applied by hand or spraying and may be applied in one or several layers. When applying it by hand, trowels and trueing devices should be used. For spraying a worm pump with adjustable discharge flow should be

used. In these cases please request our assistance or the equipment planner leaflet.

#### Finishing

After application Nafufill KM 103 can be smoothed and finished with a dry, smooth sponge. In case of sprayed applications the surface can remain spray-rough.

#### Overcoating Time

If two or more layers are applied, the intervals between the individual work-steps must be observed (see "Technical Data" table).

#### Curing

At + 20 °C Nafufill KM 103 can be coated with Betonflair WG or EmceColor-flex E three hours after finishing. Higher temperatures and wind exposure shorten the overcoating times. If it is not overcoated Nafufill KM 103 must be protected from direct sunlight and wind to prevent it from drying out too rapidly. In case of moist exposure (rain, dew) at an early stage, slight discolorations might develop on the surface. Before starting further work loose particles must be removed.

## Technical Data for Nafufill KM 103

Characteristic	Unit	Wert*	Bemerkungen
Largest grain size	mm	0.2	-
Fresh mortar density	kg/dm <sup>3</sup>	2.09	-
Bending tensile/ compressive strength	N/mm <sup>2</sup>	5.0/17.0 9.0/27.0 10.1/32.8	after 2 days after 7 days after 28 days
Dynamic E-modulus	N/mm <sup>2</sup>	24,000	after 28 days
Static E-modulus	N/mm <sup>2</sup>	14,500	after 28 days
Coverage (dry mortar)**	kg/m <sup>2</sup> /mm kg/m <sup>2</sup>	1.75 0.8 -1.5	as surface filler as scratch coat and pore and cavity filler
Pot life	minutes	60 45 30	at + 5 °C at + 20 °C at + 30 °C
Waiting times	hours	1	1. work step / 2. work step
Layer thickness	mm	1 3 3	minimum layer thickness per work step maximum layer thickness per work step maximum total layer thickness
Overcoating time	hours	3	with Betonflair WG, Nafufill BS or EmceColor-flex E
Application conditions	°C	≥ 5 - ≤ 30	air, material and substrate temperature
Mixing ratio	p. b. w.	100 : 17 - 18	Nafufill KM 103 : water

## Product Characteristics for Nafufill KM 103

Colour	cement-grey
Delivery	25 kg bags
Storage	Can be stored in cool and dry conditions for at least one year in original unopened packs.
Disposal	Packs must be emptied completely.

Please observe the Application Advice.

\* All values have been determined at 23 °C and 50 % relative humidity

\*\* Coverage rates depend on density, porosity, type of substrate etc. To determine project-specific coverage rates we recommend to apply a trial area.

### Safety Advice

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

**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 04/12. 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.