

# Nafufill KM 220

Fibre-reinforced repair mortar and fine mortar



## PRODUCT PROPERTIES

- One-component, polymer-modified
- Hand and wet spray application
- May be applied without bond coat
- Low fresh mortar density, low consumption
- Resistant to temperature, frost-thaw and de-icing salts
- High carbonation resistance
- Increased bonding capacity
- Suitable for wall and overhead areas
- Layer thickness 2 - 30 mm
- Excellent application properties
- Registered with DGNB (Code: EMUSRA)
- Non-flammable according to EN 13501-1 - building material class A1
- Class R2 according to EN 1504 part 3

## AREAS OF APPLICATION

- Repair of fractured or broken areas in concrete, application of levelling layers and fine mortaring works > 2 mm
- Suitable for partial and full-surface application onto normal-, lightweight- and chipped brick concrete in civil engineering, industrial- and housing construction
- For exposure classes XO, XC1-4 and XF1-4 as well as moisture classes WO, WF and WA
- Certified and classified according to EN 1504 part 3 for principle 3, procedures 3.1, 3.3, 7.1, 7.2 and 7.4

## APPLICATION ADVICE

**Substrate preparation:** See leaflet "General Application Advice Coarse Mortars / Concrete Replacement Systems".

**Mixing:** Nafufill KM 220 is added to the prepared water under constant stirring and mixed until a homogeneous and lump-free 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 permitted. Mixing takes at least 5 minutes.

**Mixing ratio:** Please see "Technical Data" table. For a 25 kg bag of Nafufill KM 220 approx. 4.25 to 4.75 litres of water are required. As with other cement-bound products the quantity of added water may vary.

**Application:** Nafufill KM 220 can be applied by hand or wet spraying. The material may be applied in one or more layers. As Nafufill KM 220 is applied without any bond coat, a thin layer is generally to be worked into the substrate and afterwards overcoated fresh-in-fresh. A worm pump with adjustable several discharge flow is advised for spray application. Please request our assistance or our spraying technique equipment planner leaflet.

**Finishing:** Following application Nafufill KM 220 may be smoothed and finished using a wooden or plastic float or a porous sponge rubber squeegee. At the connecting areas between edge of damaged spot/ concrete the freshly applied mortar must be treated that subsequent products can be applied without problems.

**Curing:** Nafufill KM 220 must be protected from drying out too rapidly and from direct sunlight and wind exposure. Curing usually takes 3 days.

## TECHNICAL VALUES & PRODUCT CHARACTERISTICS

Characteristic	Unit	Value	Comments
Maximum grain size	mm	1	
Mixing ratio	p.b.w.	100 : 17 - 19	powder component : water
Working time	minutes	60	at 5° C
		45	at 20 °C
		30	at 30 °C
Application conditions	°C	≥ 5 ≤ 30	Temperatura del aire, soporte y material
Consumption	kg/m <sup>2</sup> /mm	1.67	factory-dried mortar
Flexural strength	N/mm <sup>2</sup>		
		24 h	1.4
		7 d	3.8
		28 d	4.2
Compressive strength	N/mm <sup>2</sup>		
		24 h	5.3
		7 d	22.5
		28 d	25
E-modulus (dynamic)	N/mm <sup>2</sup>	16,200	after 28 days
Layer thickness	mm	2	minimum layer thickness per pass/operation
		30	maximum layer thickness per pass/operation
		30	maximum total layer thickness
		50	as a reprofiling mortar
Fresh mortar bulk density	kg/dm <sup>3</sup>	1.95	
Shrinkage	mm/m	1	after 28 days

All technical values are laboratory results determined at 21°C ±2°C and 50% relative humidity.

Form	pulverous
Colour	Cement grey
Delivery form	25 kg bag
Storage	Can be stored in cool and dry conditions for at least 12 months in original unopened packs.
Packaging disposal	Make sure single-use containers are completely empty.

GISCODE : ZP1

**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. [2400020501]