



Nafufill KM 250 GH

Fibre-Reinforced, Polymer-Modified Concrete Repair Mortar

Product Properties

- Polymer modified
- Single-component
- Hand and spray application
- High resistance to carbonization
- Suitable for thickness of 6 to 50 mm
- Ideal application and hardening times

Areas of Application

- Repair mortar for non-trafficable areas, with or without dynamical load
- Repair of water retaining structures
- Concrete replacement
- Increasing the concrete cover of interior and exterior component

Application

SURFACE PREPARATION

Surface Treatment

The surface must be clean and free from all loose particles, dust, oil and other contaminants. A substrate pull-off strength $\geq 1.5 \text{ N/mm}^2$ is required. The substrate must have sufficient roughness, e.g. sound aggregates should be visible.

Manual Application

Before application of Nafufill KM 250 GH, the bond coat, Nafufill KMH, should be brushed into the moistened surface.

The repair mortar, Nafufill KM 250 GH, should then be applied "fresh-in- fresh" to the bond coat by trowel or float.

Spray Application

In this case a bond coat is not required. Before application of Nafufill KM 250 GH the surface should be moistened but not saturated.

Mixing

Nafufill KM 250 GH is mixed with water. The powder is slowly added to the water and mixed thoroughly until a homogeneous, lump-free suitable mortar is achieved. Drum mixers or slowly rotating stirring paddles are suitable. Mixing should take approx. 5 minutes. Mixing by hand is not permitted. Use full pack sizes only.

Mixing ratio:

100 p.b.w. Nafufill KM 250 GH 15 – 16 p.b.w. water. For a 25-kg bag of Nafufill KM 250 GH about 3.75 - 4.00 l of water is required. Quantity of water may vary slightly due to application conditions.

Application

Nafufill KM 250 GH can be applied by hand with floats or trowels, or by wet-spray technique. The spray machine MC-213 SP is particularly recommended. Working time is about 45 min at +20°C. Hardened or hardening material should not be re-mixed or applied.

Also, hardening material should not be re-worked, otherwise cracks may occur.

Nafufill KM 250 GH should not be applied at temperatures below +5°C (air and substrate). The temperature should not be allowed to fall below +5°C during curing.

Manual Application

Nafufill KM 250 GH is applied with floats or trowels to give a thickness of between 6 mm and 50 mm. Applications over 25 mm deep should be applied in two or more layers. The second and subsequent layer should be applied when the previous layer has stiffened sufficiently but it should not be dried out.

Spray Application

Nafufill KM 250 GH is sprayed to give a thickness of between 6 mm and 50 mm. Applications over 25 mm deep should be applied in two or more layers. The second and subsequent layers should be applied when the previous layer has stiffened sufficiently, but is still not dry. Should the lower layer be dried out, it must be pre-wetted.

Curing

Care must be taken to ensure that Nafufill KM 250 GH is suitably protected, especially from the effects of sun and wind, to prevent it drying out too rapidly. Rain or similar conditions can cause slight surface blemishes.

Before application of further coatings, loose particles must be removed.



Technical Data for Nafufill KM 250 GH

Characteristics	Unit	Value	Comments
Max. grain size	mm	2.0	
Fresh mortar density	kg/dm ³	~2.1 – 2.2	
Dry density	kg/dm ³	~1.85	
Compressive strength	N/mm ²	40	2 days
		50	7 days
		62	28 days
Flexural strength	N/mm ²	5.4	2 days
		7.3	7 days
		8.4	28 days
Water absorption @ 28 days (BS 1881: Part 122)	%	< 2.5	
Initial surface absorption (BS 1881: Part 208)	ml/m ² /sec	< 0.04	
Rapid chloride permeability (ASTM C1202)	coulombs	< 1000	
Dynamic E-modulus	N/mm ²	32,500	after 28 days
Shrinkage @ 28 days	mm/m	0.78	EN 12617-4
Carbonization depth	mm	0	after 90 days
Coverage *	kg/m ² /mm	1.8	
Layer thickness	mm		
<i>Min. layer thickness</i>		6	per application
<i>Max. layer thickness</i>		25	per application
<i>Max. total thickness</i>		50	per application
Mixing ratio	litres	3.75 – 4.0	per 25kg bag
Working time	minute	60	at + 05°C
		45	at + 20°C
		30	at + 30°C

* Coverage rates depend on the texture, temperature and porosity of the substrate, as well as on product storage and workability temperatures. To determine this exactly, a trial area should be laid and coverage noted.

Product Characteristics for Nafufill KM 250 GH

Colour	cement-grey
Packaging	25 kg bag
Storage	Can be store in shaded, cool and dry conditions for at least one year in original unopened packs
Disposal	In the interest of our environment please empty all packs completely and dispose of in accordance with statutory regulations.

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 01/25. 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.