

# MC-RIM PW 201

Special concrete replacement for repair in drinking water areas



## PRODUCT PROPERTIES

- Cement-bound, only to be mixed with water
- Classified as type 2 in accordance with DVGW-leaflet W 300, but without polymer-containing additives
- Tested according to DVGW-leaflets W 347 and W 270
- Application by hand and wet spraying technique
- Open to water vapour diffusion and impermeable to water
- Low porosity
- Class R4 according to EN 1504 part 3

## AREAS OF APPLICATION

- Concrete replacement for wall-, floor- and overhead areas, for concrete components in statically relevant and non-statically relevant areas in drinking water reservoirs, drinking water purification plants and drinking water protection zones
- Concrete replacement for large-scale increase of the concrete cover at wall- and overhead areas
- According to DAfStb-repair guideline M3 concrete replacement
- Suitable for exposure class XTWB
- Also suitable for creation of coverings
- Certified and classified according to EN 1504 part 3 for principle 3, 4 and 7, procedure 3.1, 3.3, 4.4, 7.1 and 7.2

## APPLICATION ADVICE

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

**Reinforced Steel:** Nafufill KMH is to be used as corrosion protection. See leaflet "General Application Advice Coarse Mortars / Concrete Replacement Systems".

**Bond Coat:** For hand application only Nafufill BC is to be used. See leaflet "General Application Advice Coarse Mortar / Concrete Replacement Systems".

**Mixing:** MC-RIM PW 201 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 MC-RIM PW 201 approx. 3.75 to 4.00 litres of water are required. As with other cementbound products the quantity of added water may vary.

**Application:** MC-RIM PW 201 can be applied by hand or wet spraying technique. 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 a spraying technique equipment planner leaflet in such a case.

**Finishing:** After application MC-RIM PW 201 may be smoothed and finished with a wooden or plastic float. To improve the surface smoothness and impermeability smoothed surfaces should be refinished again without pressure.

**Curing:** Curing must be carried out immediately after surface finishing. The curing times indicated in DIN 1045-3 must be observed and tripled according to DVGW, work sheet W 300. The relative humidity must be between 85 and 95 % during the entire curing time, achieved by using suitable air humidifiers.

## TECHNICAL VALUES & PRODUCT CHARACTERISTICS

Characteristic	Unit	Value	Comments
mixing ratio	p.b.w.	100 : 15 - 16	powder component : water
working time	minutes	60	at 5°C
		60	at 10°C
		45	at 20°C
application conditions	°C	≥ 5 ≤ 30	air, substrate and material temperatures
consumption	kg/m <sup>2</sup> /mm		
dry mortar		1.81	
layer thickness	mm	10	minimum layer thickness per pass/operation
		25	maximum layer thickness per pass/operation
		50	maximum total layer thickness
Maximum grain size	mm	2	
fresh mortar bulk density	kg/dm <sup>3</sup>	2.1	
water/cement ratio	w/c	< 0.5	
compressive strength	N/mm <sup>2</sup>		
		7 d	47 at 10°C
		7 d	45 at 21°C
		28 d	54.3 at 10°C
		28 d	57.7 at 21°C
fresh mortar air void content	Vol.-%	< 5	
flexural strength	N/mm <sup>2</sup>		
		7 d	7.5 at 10°C
		7 d	7.7 at 21°C
		28 d	9 at 10°C
		28 d	9.8 at 21°C
E-modulus (dynamic)	N/mm <sup>2</sup>	33,000	after 28 days
total air void volume	Vol.-%	7.6	after 28 days
		6.8	after 90 days

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

form	pulverous
colour shade	light grey
delivery form	Sack goods @ 25 kg
Storage	Can be stored in cool and dry conditions for at least 12 months in original unopened packs. Protect from frost.
packaging disposal	Make sure single-use containers are completely empty. Ensure compliance with our information leaflet "Return of Emptied Transportation and Sale Packaging". We will be glad to send you this on request.

**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. [2100005143]