



# MC-RIM PW 20

## Cement-bound coating for repair of potable water reservoirs based on DySC®-technology

### Product Properties

- Only to be mixed with water, pure mineral
- Application by hand and wet spraying technique
- Open to water vapour diffusion, impermeable to water
- Chloride-proof
- Approved according to DVGW, work sheet W 270, W 347 and W 300
- Class R4 according to EN 1504 part 3

### Areas of Application

- Surface protection for wall- and overhead areas in drinking water reservoirs and concrete components in drinking water protection areas
- Suitable as concrete replacement and to increase the concrete cover on wall- and overhead areas
- M3 concrete replacement according to DAfStb-repair standard for structural reinforcement of load-bearing concrete structures
- 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

#### Substrate Preparation

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

#### Reinforced Steel

MC-RIM PW-CP is to be used as corrosion protection. See leaflet "General Application Advice Coarse Mortars / Concrete Replacement Systems".

#### Bond Coat

For hand application only MC-RIM PW-BC is to be used. See leaflet "General Application Advice Coarse Mortar / Concrete Replacement Systems".

#### Mixing

MC-RIM PW 20 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 20 approx. 3.75 to 4.00 litres

of water are required. As with other cement-bound products the quantity of added water may vary.

#### Application

MC-RIM PW 20 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 an equipment planner leaflet in such a case.

#### Finishing

After application MC-RIM PW 20 may be smoothed and finished with a wooden or plastic float or with a porous sponge rubber squeegee. To improve the surface smoothness and impermeability smoothed surfaces should be re-finished 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 Data for MC-RIM PW 20

Characteristic	Unit	Value*	Comments
Largest grain size	mm	2	-
Fresh mortar density	kg/dm <sup>3</sup>	2.16	-
Bending tensile / Compressive strength	MPa	5.3/32.2 6.2/40.9 6.4/45.6 6.2/46.8 8.6/60.0 8.6/65.8	at + 10 °C after 2 days at + 20 °C after 2 days at + 10 °C after 7 days at + 20 °C after 7 days at + 10 °C after 28 days at + 20 °C after 28 days
Dynamic E-modulus	MPa	30,500	after 28 days
Water-cement ratio	w/c <sub>eq</sub>	< 0.5	
Fresh mortar air void content	vol.-%	< 5.0	
Total air void content**	vol.-%	6.0	after 28 days
Chloride migration coefficient	m <sup>2</sup> /s	2.53x10 <sup>-12</sup>	
Coverage (dry mortar)	kg/m <sup>2</sup> /mm	1.86	
Pot life	minutes	60 60 45	at + 5 °C at + 10 °C at + 20 °C
Layer thickness	mm	10 25 50	minimum layer thickness per work step maximum layer thickness per work step maximum total layer thickness
Application conditions	°C	≥ 5 - ≤ 30	air, material and substrate temperature
Mixing ratio	p.b.w.	100 : 15 - 16	MC-RIM PW 20 : water

## Product Characteristics for MC-RIM PW 20

Colour	light-grey
Delivery	25 kg bags
Storage	Can be stored in cool (below 20 °C) and dry conditions for at least one year in original unopened packs. Protect from frost!
Disposal	Packs must be emptied completely.

\* All technical values have been determined in the lab at + 10 °C and 80 % relative humidity.

\*\* Lab value, determined at standard conditions.

### 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 08/16. 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.