

# MC-RIM PW 101

Mineral high-performance coating for drinking water areas



## PRODUCT PROPERTIES

- Based on DySC®-technology
- Cement-bound, only to be mixed with water
- Application by hand and wet spraying technique
- Open to water vapour diffusion and impermeable to water
- Highly sulphate resistant and chloride-proof
- Low porosity, thus high resistance against hydrolysis
- Tested and approved according to DVGW-leaflet W 347 Type 2
- Fulfills the requirements of DVGW-leaflet W 270 and W 300-5 (A)
- Certified and externally monitored according to ÖVGW
- Class R4 according to EN 1504 part 3

## AREAS OF APPLICATION

- Surface protection for wall- and overhead areas in drinking water reservoirs, drinking water purification plants and concrete components in drinking water protection zones
- Suitable for concrete components in statically relevant and non-statically relevant areas
- Suitable for exposure class XTWB
- Certified according to EN 1504 part 3 for principle 3 and 7, procedure 3.1, 3.3 and 7.1

## APPLICATION ADVICE

**Substrate Preparation:** See leaflet “General Application Advice Fine Fillers”.

**Mixing:** MC-RIM PW 101 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 MC-RIM PW 101 approx. 3.25 to 3.50 litres of water are required. As with other cementitious products the quantity of added water may vary.

**Application:** MC-RIM PW 101 can be applied by hand and wet spraying technique. To achieve a dense and closed coating matrix, MC-RIM PW 101 is to be applied in 2 to 3 work steps. The first layer, as a kind of scratch coat, must be worked in thoroughly into the substrate. For spraying worm pumps with variably adjustable discharge flow should be used. Please request our assistance or the equipment planner leaflet.

**Finishing:** In case of 3-layer application we recommend to leave the second layer spray-rough. The last layer is to be pre-smoothed using a stainless steel trowel. Afterwards the smoothed surface is to be rubbed off using a fine-pored sponge and, to increase the surface smoothness and impermeability, to be finished again using a trowel.

The overcoating times between the separate layers must be observed.

**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.

**Cleaning:** For regular cleaning intervals of MC-RIM PW 101 coatings neutral cleaning agents are to be used.

**General Information:** The total layer thickness of MC-RIM PW 101 is a full-surface coating above the grain tips of the existing concrete. The roughness compensation is not included. The total layer thickness of 15 mm can be exceeded locally (contiguous area  $\leq 5 \text{ m}^2$ ) by 25% without any problems.

## TECHNICAL VALUES & PRODUCT CHARACTERISTICS

Characteristic	Unit	Value	Comments	
Mixing ratio <sup>1)</sup>	p.b.w.	100 : 13 - 14	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	1.9	factory-dried mortar	
Layer thickness	mm	8	minimum layer thickness per pass/operation	
		15	maximum layer thickness per pass/operation	
		15	maximum total layer thickness	
Maximum grain size	mm	1.2		
Fresh mortar bulk density	kg/dm <sup>3</sup>	2.16		
Water/cement ratio	w/c	< 0.5		
Compressive strength <sup>2)</sup>	N/mm <sup>2</sup>			
		28 d	≥ 45	
Fresh mortar air void content	Vol.-%	< 5		
Flexural strength	N/mm <sup>2</sup>			
		28 d	≥ 6.5	
E-modulus (static)	N/mm <sup>2</sup>	32,600	after 28 days	
Overworkable after	minutes	30	1st layer (scratch coat) / 2nd layer	
		hours	≤ 4	2nd layer / 3rd layer
			≥ 16	2nd layer / 3rd layer
Total air void volume	Vol.-%	< 9	after 28 days	
		< 8.5	after 90 days	
		< 7.5	after 180 days	
Water penetration depth <sup>3)</sup>	mm	1	at 5 bar gauge pressure per EN 12390-8	

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

1) When spraying, the maximum amount of water should be added.

2) Fulfills all requirements according to DVGW W 300-5 (A) already at the age of 7 days. Nevertheless, the minimum curing period must be observed.

3) test age 28 days

Form	pulverous
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.

**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. [2300018786]