



# MC-RIM PROTECT-ST

## Sulphate resistant, fibre-reinforced coating mortar for use in wastewater industry

### Product Properties

- One-component, polymer-modified, fibre-reinforced
- Application by hand and wet spraying
- Resistant from pH 4.5 to pH 14
- Chloride-proof and sulphate-resistant
- Open to water vapour diffusion
- Impermeable to water and resistant to permanent water exposure
- Class R4 according to EN 1504 part 3

### Areas of Application

- Coating mortar for protection of concrete-, reinforced concrete- and prestressed concrete components in sewage structures
- Preferably suitable for use in rain spillway basins and secondary sedimentation basins
- For use in primary sedimentation basins, activated sludge tanks, sand traps, sludge thickeners and inlet channels please request our special advice
- Suitable for filling of ruptures and as base layer in combination with MC-RIM PROTECT / MC-RIM PROTECT-MR
- Suitable for exposure to XD 1-3, XS 1-3, XF 1+3, XA 1-2 and XWW 1-2
- Certified according to EN 1504 part 3 for principles 3 and 7, procedures 3.1, 3.3 and 7.1

### Application

#### Substrate Preparation

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

#### Bond Coat

Only in case of hand application Nafufill BC is to be used as bond coat. See leaflet "General Application Advice Coarse Mortars / Concrete Replacement Systems".

#### Mixing

MC-RIM PROTECT-ST is added to the water under constant stirring and mixed until a homogeneous, 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 PROTECT-ST approx. 3.75 - 4.00 litres of water are required. As with other cement-bound products the quantity of added water may vary.

#### Application

MC-RIM PROTECT-ST can be applied by hand or wet spraying. A worm pump with adjustable discharge flow is advised for spray application. Please request our assistance or our equipment planner leaflets for spray application.

Exposure to direct sun must be avoided during application of MC-RIM PROTECT-ST.

If MC-RIM PROTECT-ST is applied as top coat or protective coating, it should generally be applied in 2 work steps.

#### Finishing

MC-RIM PROTECT-ST may remain spray-rough or be abraded or smoothed. Please see leaflet „General Application Advice Product Range MC-RIM PROTECT“.

#### Curing

MC-RIM PROTECT-ST must be cured for 5 days using moist jute and plastic foil. The jute must not dry out during this time and must be kept moist. Only if applied as top coat the liquid curing agent MC-RIM PROTECT-C may be used alternatively.



## Technical Data for MC-RIM PROTECT-ST

Characteristic	Unit	Value*	Comments
Largest grain size	mm	2	-
Fresh mortar density	kg/dm <sup>3</sup>	2.06	-
Dry mortar density	kg/dm <sup>3</sup>	1.93	-
Bending tensile/ compressive strength	MPa	6.0/40.0 8.0/53.2	after 7 days after 28 days
Dynamic E-modulus	MPa	approx. 29,000	after 28 days
Total air void content	Vol. %	7.7	after 28 days
Coverage (dry mortar)	kg/m <sup>2</sup> /mm	1.78	
Pot life	minutes	60 45 30	at + 5 °C at + 20 °C at + 30 °C
Resistant to water exposure	days	2 1	at + 10 °C at + 20 °C
Layer thickness	mm	10 20 40 40	min. layer thickness per work step max. layer thickness per work step max. total layer thickness reprofiling of disruptions
Application conditions	°C	≥ 5 - ≤ 30	air, material and substrate temperature
Mixing ratio	p. b. w.	100 : 15 - 16	MC-RIM PROTECT-ST : water

## Product Characteristics for MC-RIM PROTECT-ST

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

\*All values have been determined in the lab at + 23 °C and 50 % relative humidity

### 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 01/19. 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.