

# 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 14 to pH 4.5
- 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, XC1-4, 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 ADVICE

**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 prepared 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 values & product characteristics" 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 VALUES & PRODUCT CHARACTERISTICS

Characteristic	Unit	Value	Comments
Mixing ratio	mass fractions	25 : 3.75 - 4	powder component : water
Working time	minutes	60	at 5° C
		45	at 20° C
		30	at 30° C
Application conditions	°C	≥ 5 ≤ 30	air, substrate and material temperatures
Consumption	kg/m <sup>2</sup> /mm		
Dry mortar		1.78	
Layer thickness	mm	10	minimum layer thickness per pass/operation
		20	maximum layer thickness per pass/operation
		40	maximum total layer thickness
		40	as a reprofiling mortar
Water resistant after	days	2	at 10° C
		1	at 20° C
Maximum grain size	mm	2	
Dry bulk density	kg/dm <sup>3</sup>	1.93	
Fresh mortar bulk density	kg/dm <sup>3</sup>	2.06	
Compressive strength	N/mm <sup>2</sup>		
7 d		40	
28 d		53.2	
Flexural strength	N/mm <sup>2</sup>		
7 d		6	
28 d		8	
E-modulus (dynamic)	N/mm <sup>2</sup>	approx. 29,000	after 28 days
Total air void volume	Vol.-%	7.7	after 28 days

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

Form	pulverous
Equipment cleaning agent	water
Colour	Cement grey
Delivery form	25 kg bag
Storage	Can be stored in original sealed packages at temperatures between 5°C and 25°C in dry conditions for at least 12 months.
Packaging disposal	Make sure single-use containers are completely empty.

### Safety instructions

Please note the safety information and advice given on the packaging labels and safety data sheets. GISCODE : ZP1

**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. [2300018101]