MC-RIM® PROTECT-H

Highly sulphate resistant surface protection coating for use on horizontal areas in sewage industry

Product Properties

- One-component, cement-bound, polymer-modified
- Hand and pump application
- Resistant from pH 14 to pH 3.5
- Resistant to temperature, frost and de-icing salt
- Resistant to permanent water exposure, chloride-proof
- Open to water vapour diffusion, impermeable to water
- Abrasion resistant, tested in accordance with Böhme
- Certified in accordance with EN 13813

Areas of Application

- Suitable for use on horizontal and slightly sloped areas (incl. scraper trackways)
- Also suitable for repair of partial defects
- Suitable for exposure to XD 1-3, XS 1-3, XA 1-3, XF 1-4, XM 1 and XWW 1-3
- Classified according to EN 13813 as cement screed of class CT/C60

Application

Substrate preparation
See leaflet “General Application Advice Coarse Mortars / Concrete Replacement Systems”.

Bond Coat
Use Nafufill® BC as bond coat. See leaflet “General Application Advice Coarse Mortars / Concrete Replacement Systems”.

Mixing
MC-RIM® PROTECT-H is added to the prepared water under constant stirring and mixed until homogeneous and lump-free. Forced mixers or slowly rotating double-mixers must be used for mixing. Mixing by hand or preparation of partial quantities is not permitted. Mixing takes 5 minutes.

Mixing ratio
Please refer to the “Technical Data” table. For a 25 kg bag of MC-RIM® PROTECT-H approx. 2.50 to 2.75 litres of water are required. As with other cement-bound products the quantity of added water may vary.

Application
MC-RIM® PROTECT-H can be applied by hand or mechanically. Irrespective of the application method, a void-free application must be ensured. To achieve uniform layer thicknesses we recommend using height gauges. Existing joints in the substructure (old concrete) must be transferred to the surface coating. At floor/wall areas permanently exposed to water a coving must be formed.

Finishing
Following application MC-RIM® PROTECT-H can besmoothed, finished with standard curing equipment and slightly smoothed again to increase the surface smoothness and density.

Details on mechanical application
MC-RIM® PROTECT-H may be conveyed to the place of application using standard screed pumps. To ensure proper application, please request support and assistance of our technicians beforehand.

Curing
MC-RIM® PROTECT-H 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. Alternatively MC-RIM® PROTECT-H may also be cured with the curing agent MC-RIM® PROTECT-C.

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Technical Data MC-RIM® PROTECT-H

Characteristic	Unit	Value*	Comment
Largest aggregate	mm	3	
Fresh mortar density	kg/dm³	approx. 2.21	
Flexural tensile- / Compressive strength	MPa	6.0 / 30.0 6.2 / 54.0 9.5 / 56.2	after 2 days after 7 days after 28 days
Shrinkage	mm/m	0.47	after 28 days
Chloride migration coefficient	m²/s	4.94×10^{-12}	
Water load capacity	days	1 2	at + 20 °C at + 10 °C
Coverage	kg/m²/mm	1.99	MC-RIM® PROTECT-H dry mortar
Application time	minutes	45 30 20	at + 5 °C at + 20 °C at + 30 °C
Layer thicknesses	mm	15 60 60	min. layer thickness per work step max. layer thickness per work step max. total layer thickness
Application conditions	°C	≥ 5 - ≤ 35 ≥ 5 - ≤ 30	air- and substrate temperature material temperature
Mixing ratio	p.b.w.	100 10 - 11	MC-RIM® PROTECT-H water

Product Characteristics MC-RIM® PROTECT-H

Colour	cement-grey
Delivery	25 kg bags
Storage	Can be stored in cool and dry conditions for at least one year in original unopened packs. Protect from frost.
Disposal	Packs must be emptied Completely

* All technical data are lab values and relate to + 23 °C and 50 % relative humidity, material temperature between + 15 °C and + 25 °C.

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