

Product Line MC-RIM PROTECT

APPLICATION ADVICE

General: Each coating can only fulfil its intended properties in an optimal way, if a closed and compact coating matrix can be achieved. Proper substrate preparation is a precondition. Existing pores, blowholes, defects and larger unevenness must be closed, filled and/or leveled.

Substrate preparation: The concrete substrate must be prepared in order to achieve a strong and permanent bond between the cement-bound products mentioned in here and the concrete substrate. The substrate must be clean and free from all loose particles, dust, oil and any other contaminants. Any cement laitance must be removed from the surface. The surface tensile strengths of the prepared concrete substrate must be at least 1.0 N/mm² (single values) and average out at 1.5 N/mm². In addition the concrete substrate must bear sufficient surface roughness. Therefore the grain tips in the concrete surface must be exposed with round ends.

Pre-wetting

Concrete substrate: Prior to application of the specified products the concrete substrate must be pre-wetted thoroughly. Highly absorbent substrates must be pre-wetted several times. MC-RIM PROTECT/MC-RIM PROTECT-MR and, if required, a concrete replacement system may be applied onto the pale damp, but not saturated substrate.

Pre-wetting

Reprofiling/Levelling: If reprofiling / levelling is carried out and application of MC-RIM PROTECT/MC-RIM PROTECT-MR is continued the following day, any curing measures are to be removed and MC-RIM PROTECT/MC-RIM PROTECT-MR to be applied onto the still dark-looking and dust-free concrete replacement. Any later coating requires pre-wetting. One-time pre-wetting is usually sufficient, whereby the surface must always be pale damp prior to application.

Application

Application on fresh concrete: Onto fresh concrete MC-RIM PROTECT/MC-RIM PROTECT-MR is applied in three work steps (scratch coat plus two layers) onto the prepared and pre-wetted substrate. In the first work step a thin layer is applied to fill existing pores, blowholes and surface roughness in the substrate. Following a waiting time of ≤ 30 minutes approx. two-third of the specified total layer thickness are applied in the second work step. Following a further waiting time of 3 to 4 hours the remaining layer thickness is applied in the last work step.

Application inclusive reprofiling: Prior to application of MC-RIM PROTECT/MC-RIM PROTECT-MR existing ruptures/defects must be properly reprofiled with Nafufill KM 250 HS, Nafufill RM 40 or MC-RIM PROTECT-ST.

In order to achieve an adequate bond of MC-RIM PROTECT/MC-RIM PROTECT-MR, the reprofiled substrates must bear sufficient surface roughness, similar to the prepared concrete substrate.

The following day MC-RIM PROTECT/MC-RIM PROTECT-MR is applied in three work steps onto the prepared substrate. Application of MC-RIM PROTECT/MC-RIM PROTECT-MR is to be carried out as described in chapter "Application on fresh concrete".

Application inclusive levelling: In case a full-surface levelling of unevenness or an increase of the existing concrete cover is required prior to application of MC-RIM PROTECT/MC-RIM PROTECT-MR, this is to be carried out using the concrete replacement systems Nafufill KM 250 HS, Nafufill GTS-HS, Nafufill RM 40 or MC-RIM PROTECT-ST. In order to achieve an adequate bond of MC-RIM PROTECT/MC-RIM PROTECT-MR to the previously applied concrete replacement system, the surface of the relevant concrete replacement system should remain spray-fine or be finished in due course using a toothed stainless steel plane/rabot. The following day MC-RIM PROTECT/MC-RIM PROTECT-MR is applied in two layers onto the produced concrete replacement system. In the first work step approx. two-third of the specified total layer thickness are applied. Following a waiting time of 3 to 4 hours the remaining layer thickness is applied in the second work step.

Surface finish: MC-RIM PROTECT/MC-RIM PROTECT-MR Surface finishing of MC-RIM PROTECT/MC-RIM PROTECT-MR is to be

carried out as follows:

In case of two-layer application we recommend the first layer to remain spray-fine or to be finished in due course using a toothed stainless steel plane/rabot.

In case of three-layer application we recommend the second layer to remain spray-fine or to be finished as described for two-layer application. For both application options the last layer may either remain spray-fine or be abraded or troweled.

Application

Concrete replacement systems: The application advice in the relevant technical data sheets must be observed! In order to ensure an even layer thickness of MC-RIM PROTECT/MC-RIM PROTECT-MR, the large-scale concrete replacement should be applied perpendicular using height gauges.

Additional information

Recommended planing tool: Toothed stainless steel plane/rabot with 5-10/5-12 rows (e. g. CROCO MAX)

Depending on the project, additional system designs may be possible apart from the previously described. Therefore we recommend to request our technical advice prior to application!

Overcoating times within one pass/operation		
Application on fresh concrete	minutes < 30 hours 3 - 4	1st layer (scratch coat) / 2nd layer 2nd layer / 3rd layer
Application incl. reprofiling (concrete replacement)	hours > 16 minutes < 30 hours 3 - 4	reprofiling / 1st layer (scratch coat) 1st layer (scratch coat) / 2nd layer 2nd layer / 3rd layer
Application incl. levelling (concrete replacement)	hours > 16 hours 3 - 4	concrete replacement / 1st layer 1st layer / 2nd layer

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. [2400022708]