

PRODUCT SYSTEMS FOR REPAIRING CONCRETE

Repair and Protection of Concrete Structures



Concrete Façades



CONCRETE – THE SYSTEM SOLUTIONS

Working step

Remmers System Solution

Cleaning	<ul style="list-style-type: none"> Arte Mundit Graffiti Remove Facade Cleaning Paste Green Growth Remove Rotec® - Whirl Jet
Injection of cracks	<ul style="list-style-type: none"> Injection Resin EP Injection Resin 2 K PUR
Corrosion protection	<ul style="list-style-type: none"> Rust Inhibitor M Rust Inhibitor EP 2 K Funcosil MCI
Concrete replacement	<ul style="list-style-type: none"> Betofix RM Betofix Filler PCC Primer PCC Mortar N PCC Filler N Bonding Agent EP 2 K Repair Mortar LW EP 2 K Repair Mortar EP 2 K
Hydrophobizing treatment	<ul style="list-style-type: none"> Funcosil BI Funcosil IC Funcosil C40
Graffiti protection	<ul style="list-style-type: none"> Graffiti Protector
Coating	<ul style="list-style-type: none"> Concrete Acrylic Elastoflex Facade Paint
Scumble	<ul style="list-style-type: none"> Historic Grout Scumble





THE CONCRETE FAÇADE

Professional Systems for Perfect and Fast Repairs

For technical and design reasons, concrete is the building material of choice today. But in spite of high quality and durability, damage may occur that makes repairs and additional protection necessary. The most significant damage mechanism is the corrosion of reinforcement caused by progressing carbonation in the concrete or the penetration of chlorides (e.g. from de-icing salt).

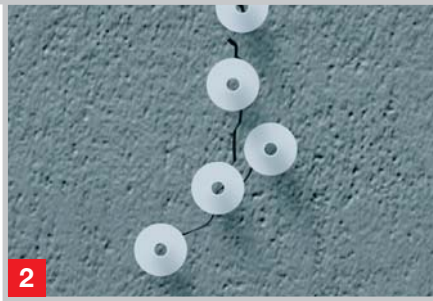
Damage can also be caused by moisture that penetrates into cracks which in turn causes rust and even more damage when it freezes. From cosmetic measures to restoring stability all the way to the special needs of historical buildings, Remmers offers repair and restoration systems the likes of which are unequalled, particularly when it comes to being fast.





Cleaning

Cleaning does not just improve the appearance. Crusts of dirt store moisture and contaminating substances and prevent the substrate from drying out.



Crack Injection

To create a frictionally coupled bond and seal cracks at the same time, cracks are injected with Injection Resin EP. If a certain expansion capability is required when connecting the flanks of the crack, Injection Resin 2K PUR can be used as an alternative.



Removal of loose material

The corroded reinforcement is completely exposed.



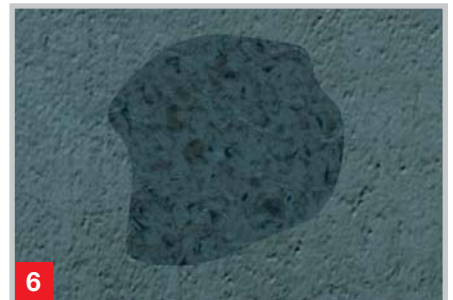
De-Rusting

The corroded steel reinforcement is mechanically cleaned to SA 2 1/2.



Corrosion Protection

Betofix RM which has been modified with Remmers Rust Inhibitor M is used as a coating to protect the cleaned steel reinforcement. Just 30 minutes after the coating has been applied, the exposed area can be closed.



Concrete Replacement

The exposed area can be closed with Betofix RM in one working operation without an additional filler. Surface protection is applied just 3 hours later.



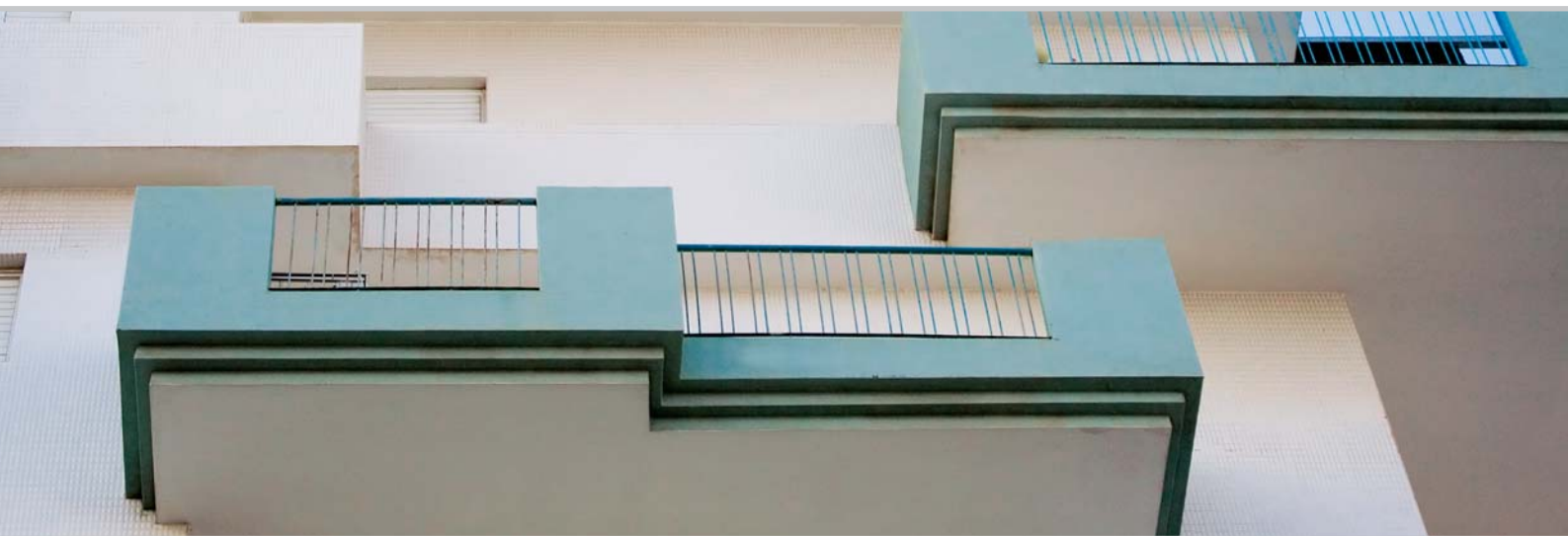
Hydrophobizing Treatment & Graffiti Protection

To protect the reinforcement from renewed corrosion, hydrophobizing treatment can be carried out. This practically prevents any water from being absorbed through the surface. Remmers Graffiti Protector, a semi-permanent, protective agent facilitates the removal of graffiti in the future.



Coating or Scumble

To inhibit carbonation in old and repaired concrete and to repel water, Remmers Concrete Acrylic, an opaque, matt, protective coating on a pure acrylic base, or Remmers Historic Grout Scumble, a semi-opaque coating on a silicone resin base, can be used.



BETOFIX RM

For the Fastest and Most Reliable Concrete Repairs

Time is money – not just when things need to be done quickly. Remmers Betofix RM sets new standards when it comes to concrete repairs. Repairs from corrosion protection all the way to coating can be executed in just one day. Especially in the case of small repair measures such as repairing a balcony slab or balustrade, having to revisit the structure twice is hardly worthwhile. So it's all the more important to have a fast system that just uses a few co-ordinated products with good working properties.

Properties and Advantages:

- Concrete repairs from corrosion protection to coating in just one day
- Betofix RM unites the properties of four products
- Filling and reprofiling can be carried out with the same material
- An additional bonding layer is not necessary since adhesion to the substrate is excellent (up to 4 N/mm²)
- Can be modified with Remmers Rust Inhibitor M and simultaneously used as a coating to protect against corrosion
- Can be coated over after 2–3 hours
- The only fast repair system with a test certificate for loading class M1 according to RiLi SIB
- Sets crack-free even in thicker layers
- Easy to work over-head
- Can be feathered out to zero





FUNCOSIL IC

Simple but High Quality Protection for Concrete



Hydrophobizing building materials has been a well-known method for protecting buildings for many centuries. The use of natural oils to make mortar water repelling and therefore more durable was described a long time ago in Vitruv's work, "De Architectura Libri Decem". Today, silanes and siloxanes in particular are used for hydrophobizing modern building materials (e.g. reinforced concrete). The efficiency and durability of hydrophobizing treatment is essentially determined by penetration depth and effective ingredient content in the area close to the surface of the building material. That's why Funcosil impregnation agents have very high active ingredient contents and have been optimised to penetrate deeply. That makes hydrophobizing treatment an easy but high quality measure to protect new as well as old concrete structures from damage caused by corrosion.

Properties and Advantages:

- Cream technique – out of the bucket and onto the wall
- Working over-head is no problem
- Excellent penetration depth because of the long contact time on the surface
- Effective ingredient content of 80 % by mass results in maximum active ingredient concentration in the edge zone of the concrete
- Highest possible performance
- Visible, uniform application ensures the quality of the hydrophobizing measure
- Less material is needed since it is only applied once
- Solvent-free

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