

4. Problem: Reinforced concrete repair

Repairs of concrete elements (smoothing, filling cavities, rusted reinforcement, destroyed parts etc.) need special attention and knowledge, as a wrong choice of materials along with improper application, depending on the severity of the situation, may render the repair ineffective.

SMOOTHENING OF EXPOSED CONCRETE



1 Imperfections on exposed concrete can easily be smoothed with the use of polymer-modified cement putties **PLANFIX** or **PLANFIX-FINE**.



2 Firstly, the surface is cleaned of any dust and is thoroughly dampened.



3 The cement putty is gradually added into water, under continuous stirring, until a uniform pasty putty is formed, proper for stuccoing.



4 The material is applied with a putty knife in one or two layers, depending on the imperfections of the surface. The second layer may be applied, after the first one has dried.



5 After the surface has hardened, it is rubbed with a thin sand paper.



6 Finally, the surface is primed with **PRIMER ACRYL** and painted with **ISOMAT ACRYL**.

PRODUCTS

- **PLANFIX** Polymer-modified cement putty. Consumption: approx. 1.3 kg/m²/mm of layer thickness
- **PLANFIX-FINE** Polymer-modified, extra fine-grained, cement putty. Consumption: approx. 1.3 kg/m²/mm of layer thickness
- **ISOMAT ACRYL** High quality acrylic emulsion paint for exterior use. Coverage: approx. 12 m² per liter, per layer
- **PRIMER ACRYL** Silicone acrylic micronized water based primer. Coverage: 10-15 m² per liter, per layer

REPAIR OF CAVITIES ON CONCRETE



1 The appearance of cavities on concrete is a rather common phenomenon.



2 Firstly, the surface is cleaned of any loose particles, by mechanical means.



3 Then, it is cleaned of any dust with the use of a hard brush.



4 Subsequently, the surface is thoroughly dampened.



5 The cavity is filled with **DUROCRET**. The material is applied by pressure with a trowel.



6 If fast work is required, **DUROCRET-FAST** or **RAPICRET** can be used instead of **DUROCRET**.

PRODUCTS

- **DUROCRET** Polymer-modified, repairing cement mortar. Consumption: approx. 15 kg/m²/cm of layer thickness
- **DUROCRET-FAST** Fast-setting, repairing cement mortar. Consumption: approx. 17 kg/m²/cm of layer thickness
- **RAPICRET** Fast-setting cement patching mortar. Consumption: approx. 17.5 kg/m²/cm of layer thickness

REPAIR OF PEELED CONCRETE AND STEEL REINFORCEMENT PROTECTION



The corrosion in reinforcement, which has led to the detachment of concrete parts, endangers the whole structure.



Initially, all broken and loose particles of the peeled concrete should be removed thoroughly, and the corroded steel reinforcement should be completely uncovered.



Subsequently, the corroded steel is cleaned and scrubbed, ground etc. with an appropriate tool in order for the rust to be completely removed.



Next, the surface is thoroughly cleaned of any dust.



FERROSEAL is applied with a brush in two layers. Its preparation requires only the addition of water.



The second layer is applied after the first one has dried.



After **FERROSEAL** has dried, the surface is dampened thoroughly.



The peeled area of the concrete is repaired with the application of **MEGACRET-40**. Its preparation requires only the addition of water.



The material is applied by pressure with a trowel.



The final surface should be well protected from dehydration for 48 hours, e.g. repeating dampening.



If fast work is required, **MEGACRET-40 FAST**, **MEGACRET-40 GEO** or **MEGACRET-50 THIXO** may be used instead of **MEGACRET-40**.



After the material has hardened, the surface is plastered and painted.

PRODUCTS

- **FERROSEAL** Cement-based, anti-corrosive coating for reinforcement elements - Bonding agent. Consumption: 0.07-0.13 kg/m of reinforcement element
- **MEGACRET-40** High-strength fiber-reinforced repairing cement mortar. Consumption: approx. 17.5 kg/m²/cm of layer thickness
- **MEGACRET-40 FAST** Fast-setting, fiber-reinforced, high-strength cementitious repairing mortar. Consumption: approx. 17.5 kg/m²/cm of layer thickness
- **MEGACRET-40 GEO** High-strength, eco-friendly repairing geo-mortar. Consumption: approx. 17 kg/m²/cm of layer thickness
- **MEGACRET-50 THIXO** High-strength, fiber-reinforced, thixotropic repairing cement mortar. Consumption: approx. 19 kg/m²/cm of layer thickness