Repair Foreva

Buildings

Foreva CONCRETE REPAIRS

The problems


Slab strengthening with additional prestressing


Floor strengthening with Foreva©TFC


Strengthening of wood structure


Balcony strengthening with additional prestressing

Whether concrete, metal, masonry or wood, bridges age and undergo changes over the course of time. Foreva Concrete Repairs offers its clients proven solutions for the repair, the protection and the strengthening of these structures.

Areas of application

- Industrial or residential buildings;
- Office buildings;
- Communal facilities;
- Shopping centres;
- Car parks;
- Historic monuments.

Identified problems

- Corrosion of reinforcing steel,
- Concrete spalling and flaking,
- Concrete cracking,
- Concrete delamination,
- Partial destruction or breaking of elements,
- Excessive deformation.

Natural causes

- Ageing of materials (steel, wood, concrete);
- Concrete cracking or spalling due to alkaline reaction;
- Concrete carbonation;
- Chloride penetration in the concrete coating;
- Chemical attacks;
- Freeze/thaw cycles.

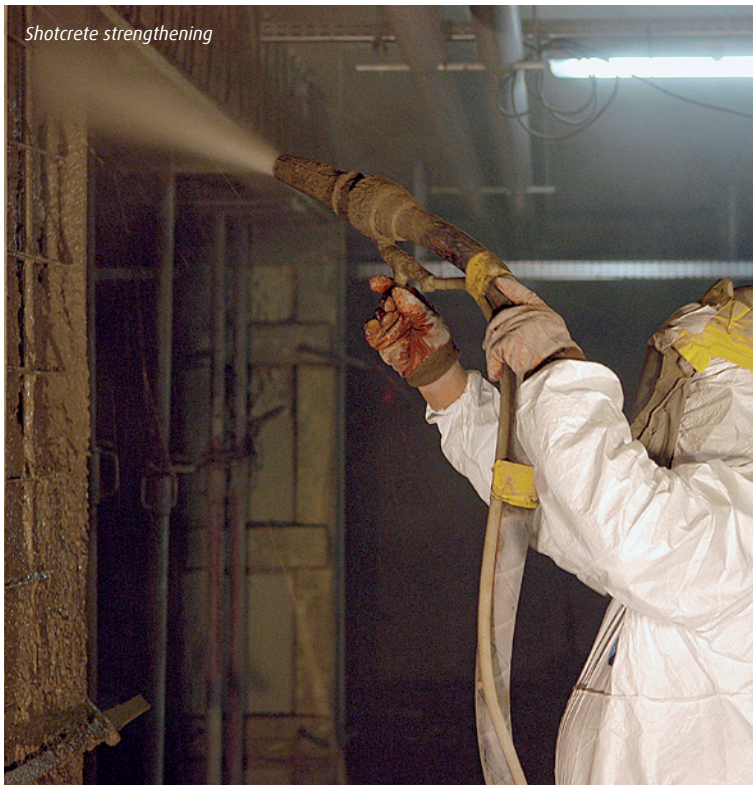
Structural causes

- Change of use (increase in live loads, creation of openings);
- Regulatory change (earthquake, wind);
- Calculation error, poor design or implementation;
- Material fatigue, effects of rolling loads.

Accidental causes

- Fire;
- Excessive loads;
- Ground movements;
- Vibrations

Foreva Concrete Repairs offers a turnkey service to guarantee for the long-term enhancement of your structures.


Shotcrete strengthening


Underpinning with micropiles


Underpinning with Fondapieu


Treatment of concrete strengthening with cathodic protection

Our solutions

The Foreva® solutions enable repair and retro works to be carried out in line with industry standards and good engineering practice while respecting the environment.

Assistance with the structural diagnosis

Assistance with the design

Concrete repair

- Treatment of cracks
  - Resin and grout injection (**Foreva® TF Inject**)
  - Injection of cracks with water infiltration
- Concrete re-profiling
  - Patch repair (**Foreva® REP**)
  - Shotcrete (**Foreva® Shotcrete**)

Protection of reinforcing steels

- Cathodic protection with galvanic anode:
  - Use of discrete anodes (**Foreva® GP Guard**)
  - Use of zinc coating (**Foreva® GP Zinc**)
- Cathodic protection with impressed current:
  - Use of discrete anodes (**Foreva® CP Tube**)
  - Use of anodic ribbons (**Foreva® CP Ribbon**)
  - Use of anodic meshes (**Foreva® CP Mesh**)
  - Use of conductive anodic coating (**Foreva® CP Coat**)
- Electro-chemical treatment of concrete
  - Realkalinization (**Foreva® PH^+**)
  - Chlorides extraction (**Foreva® CL^-**)
- Surface Treatment
  - Use of Inhibitors of corrosion (**Foreva® Inhib**)
  - Protective coatings (**Foreva® Relastic 310**)
  - Water repellent impregnation (**Foreva® Fuge**)

Strengthening works

- Additional prestressing (Freyssinet products)
- Shotcrete (**Foreva® Shotcrete**)
- Carbon fiber bonded composite
  - Bidirectional and unidirectional fabrics (**Foreva® TFC**)
  - Pultruded laminate (**Foreva® LFC**)
  - Pultruded rod (**Foreva® RFC**)
- Metal and wood reinforcements
- Underpinning with micro-piles
- Load transfer using flat jacks (Freyssinet process)

Protective coatings and waterproofing linings

- Polyurea spray coatings (**Foreva® Polyurea**)

Our specialist teams are on hand to help you identify the Foreva® solution that meets your requirements.

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