



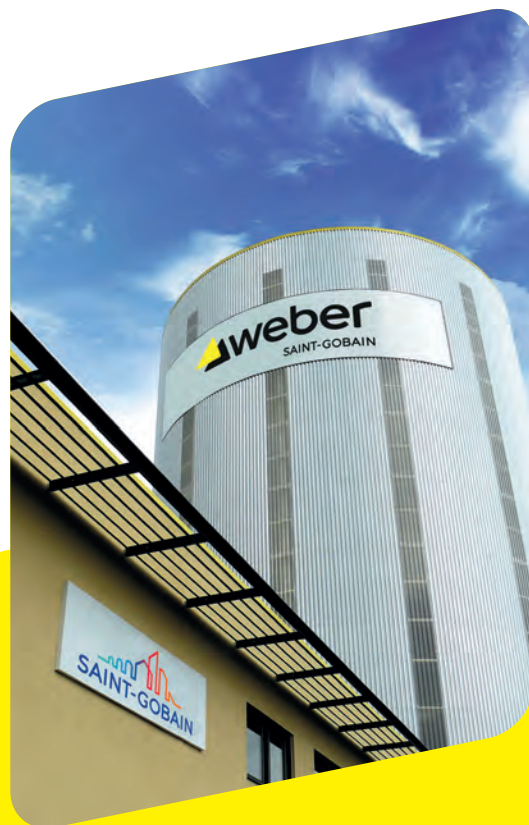
# Concrete Repair and Protection

## About Weber

**As a recognised manufacturer and innovator of easy-to-apply products in the technical mortars, facades, flooring systems and tile-fixing markets, Weber is a leading player in the construction products industry.**

The natural synergy between these specialist activities enables Weber to provide integrated solutions for a wide range of projects from renovation and refurbishment to new building developments and major civil engineering.

Weber does not only sell products but a complete solution which includes the services that go with the products; technical support, full specification, site visits, and training. Based on its strong knowledge and experience of the market, the Weber training programmes meet the needs of its customers. Weber provides specifiers, engineers and contractors with substantial technical support, both before, during and after contract periods.



## About Saint-Gobain

**Saint-Gobain designs and manufactures materials and solutions that have a positive impact on each of us and provides wellbeing, quality of life and performance, all while caring for the planet.**

Saint-Gobain materials and solutions can be found everywhere in our living places and in daily life; in buildings, transportation, infrastructure and in many industrial applications. They provide comfort, performance and safety while addressing the challenges of sustainable construction, resource efficiency and climate change.

Saint-Gobain is an international group employing around 166,000 people in over 76 countries worldwide. Established in France in 1665, Saint-Gobain is one of the world's largest industrial groups, with an annual turnover of €51.2 billion.

Some of the UK and Ireland's most respected companies and brands in the construction sector are part of Saint-Gobain, including British Gypsum, Glassolutions, Isover, PAM, Ecophon and Pasquill.

Together they offer a range of high performance energy-saving products and solutions to help create great living places and improve daily life.

## Weber's Technical Mortar Range

Along with the Concrete Repair and Protection range covered in this guide, Weber also offer solutions to the Construction Market in the form of Precision Grouting and Bedding Mortars.

**Precision Grouting** – Reliable transfer of loads from structure to supporting foundations is a vital element of design in any civil engineering project. Weber's high performance Precision Grouts offer excellent dynamic load carrying capacity, are extremely durable and provide good chemical resistance.

**Bedding Mortars** – Weber offers a range of materials for the bedding of components in the Highway, Airport and Marine market place. These products are designed for the fast installation of components and long lasting reinstatement.

# Concrete Repair and Protection

Reinforced concrete can be a highly durable structural material requiring little or no maintenance. However, it is now recognised that without correct design, mixing, placement and curing, the durability of reinforced concrete may be impaired. The repair of concrete structures has long been a key activity in the construction industry and Weber products have been specified as a solution for over 50 years.

Now the causes of concrete decay are better understood, it is clear that if more care had been taken at the time of construction by following good practice and using better quality materials then far fewer repairs would be necessary now.

Concrete can be affected by causes that are physical, mechanical or chemical in nature.

- Typical physical causes are exposure to freeze / thaw cycles and shrinkage cracking.
- Typical mechanical causes are overloading of the structure or impact damage.
- Typical chemical causes include alkali aggregate reaction or exposure to aggressive agents like sulphates.



**Physical -  
Plastic Shrinkage**



**Mechanical -  
Impact Damage**



**Chemical -  
Steel Corrosion**

Weber has a wide portfolio of products designed to facilitate repair in most circumstances, ranging from hand-placed materials for localised non-structural repairs, to flowable or spray solutions for mass structural replacement.

## Markets & Applications



### Highways

Repairs to highway structures, roads, parapets, tunnels and viaducts.



### Bridges

Repair and protection to reinforced concrete bridges in need of refurbishment due to increased traffic and design load.



### Buildings

Repairs to residential, commercial, high-rise and low-rise buildings. Fire damaged concrete structures, concrete beams, balconies, walkways, columns, walls and soffits. Protective coatings for buildings in areas of exposure.



### Marine

Repairs to many types of structure subject to sea immersion, wave action, continuous wetting and drying. Sea defences, break waters, sea walls, cliff stabilisation, piers, jetties, lifeboat ramps, pontoons.



### Car Parks

Repairs to multi-storey car park structures, concrete beams, columns, soffits and walls. Protective coatings and structural repairs.



### Power Stations

General concrete repairs, and encasement of steel sections, pylons, chimneys, cooling towers.



# Spray Repair Concrete

webercem spray DS

webercem spray DSF

webercem spray RS

webercem spray RSF

webercem spray CP

A range of ready-to-use, polymermodified dry mix sprayed concretes, machine applied by specialist contractors to provide dense, fully compacted, homogenous repairs and protective overlays.



**webercem spray** repair concrete will restore the structural integrity, durability, appearance and fitness for purpose of a wide range of structures. They have a rapid strength gain, give high resistance to chloride ion diffusion and carbon dioxide, low permeability to water and provide excellent protection to the reinforcing steel. These products can be used with additional reinforcement to strengthen and refurbish old structures. **webercem spray** repair concrete complies with National Highways specifications for repairs to highway structures.

Sprayed concrete has many advantages where the repair quantities make it the most economic solution. It is very suited to large areas, provides high strengths with early strength development.

- High early strength gains
- Strength  $>60 \text{ N/mm}^2$
- Excellent bond strength
- Low water/cement ratio
- Low permeability
- Ready to use

## webercem spray DS

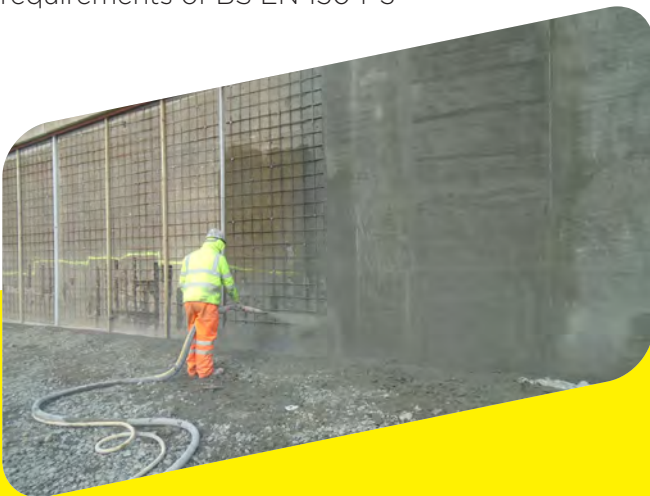
Dry spray, structural repair concrete

- Polymer-modified
- High build structural repair concrete
- Good adhesion to concrete

A pre-bagged, ready-to-use, cement-based structural concrete. It contains graded inert limestone aggregates designed to suppress dust. The formulation has been designed especially for dry process spray application to give high strength, low rebound and wastage, and to maximise the application thickness.

### *Features & Benefits*

- Relatively low dust emission, no siliceous aggregates, no caustic accelerators
- High build – up to 150mm thickness can be applied in one pass on vertical and overhead faces encapsulating existing steel reinforcement
- Low permeability to water and chlorides
- Complies with National Highways specifications for repairs to highway structures
- Class R4 repair product meeting the requirements of BS EN 1504-3



*Blairs Bridge, Redding*

**webercem spray DSF**

## webercem spray DSF

Dry spray, structural repair concrete, with fibre-reinforcement

- Polymer-modified
- High early strength and reduced rebound
- High build - up to 300mm thickness can be applied in a single operation, depending on the repair location

Ready-to-use, cement-based concrete mix. It contains inert limestone aggregates designed to suppress dust. The formulation has been designed especially for dry process spray application to give high early strength, reduced rebound and maximise application thickness. Contains alkali-resistant glass fibres to increase adhesive bond.

### *Features & Benefits*

- Economical – low rebound
- No siliceous aggregates, no caustic accelerators
- High build – up to 150mm thickness can be applied in one pass on vertical and overhead faces without any additional mesh reinforcement
- Low permeability to water and chlorides
- Low chloride ion diffusion: better protection of reinforced concrete marine structures
- Fibres provide better strain relief and stress distribution
- Thin overlays 25-50mm on columns, piers and walls without the need for mesh, providing extra cover to steel
- Class R4 repair product meeting the requirements of BS EN 1504-3

The weak and delaminated concrete was removed by hydro-demolition followed by the spray application of **webercem spray DSF** which was hand trowelled to provide a flat profile. Designed especially for dry process spray application to give high early strength, reduced rebound and waste, and maximise application thickness, **webercem spray DSF** contains alkali glass fibres that offer better strain relief and stress distribution and increase adhesive bond.

## webercem spray RS

### Rapid set dry spray, structural repair concrete

- Polymer-modified
- High build, rapid setting structural repair concrete
- Good adhesion to concrete

A ready-to-use, dry-sprayed concrete able to achieve very rapid early set, ideal for concrete repairs where time constraints demand early strength gain. The product contains accelerators and inert limestone aggregates designed to suppress dust. The formulation is designed for the dry spray process method of application with reduced rebound and excellent sprayability.

### *Features & Benefits*

- Rapid set prevents washout from tidal action or flowing water
- High build – up to 150mm thickness can be applied in one pass to vertical faces
- Non-reactive aggregate complying with National Highways Clause 5704
- Total chloride ion content is less than 0.01%
- Good resistance to salts absorption
- Class R4 repair product meeting the requirements of BS EN 1504-3

## webercem spray RSF

### Fibre-reinforced, rapid set dry spray, structural repair concrete

- Improved crack resistance
- Extra high build - up to 400mm in one pass to vertical faces
- Increased adhesive bond

A ready-to-use, polymer-modified, dry-sprayed concrete able to achieve rapid early set, ideal for concrete repairs where time constraints demand early strength gain. The product contains accelerators and inert limestone aggregates designed to suppress dust. The formulation is designed for the dry spray process method of application with reduced rebound and excellent sprayability.

### *Features & Benefits*

- Rapid set prevents washout from tidal action or flowing water
- Economical with low rebound
- Fibres help improve resistance to cracking and adhesion to concrete substrates
- Total chloride ion content does not exceed 0.05% of the weight of cement.
- Good resistance to chloride salts absorption
- Class R4 repair product meeting the requirements of BS EN 1504-3

## webercem spray CP

Low-resistivity, rapid set dry spray, structural repair concrete

- Suitable for structures which receive cathodic protection
- High build structural repair concrete
- Good adhesion to concrete

Ready-to-use, cement-based concrete mix. It contains inert limestone aggregates designed to suppress dust. The formulation has been designed especially for dry process spray application to give reduced rebound and maximise application thickness. It has low resistivity which makes it suitable for application to structures which receive cathodic protection.

### *Features & Benefits*

- Low resistivity
- Economical – low rebound – less wastage of materials and labour
- Relatively low dust emission, no caustic accelerators
- High build – up to 100mm thickness can be applied in one pass on vertical faces
- Complies with National Highways specifications for repairs to highway structures



Thelwall Viaduct, Manchester,  
**webercem spray DS &**  
**webercem repair concrete**



For more information  
please visit **[www.uk.weber](http://www.uk.weber)**,  
call **01525 718877** or email  
**[technical@netweber.co.uk](mailto:technical@netweber.co.uk)**



# Flowable Repair Concrete

webercem advanced repair concrete

webercem advanced repair concrete CP

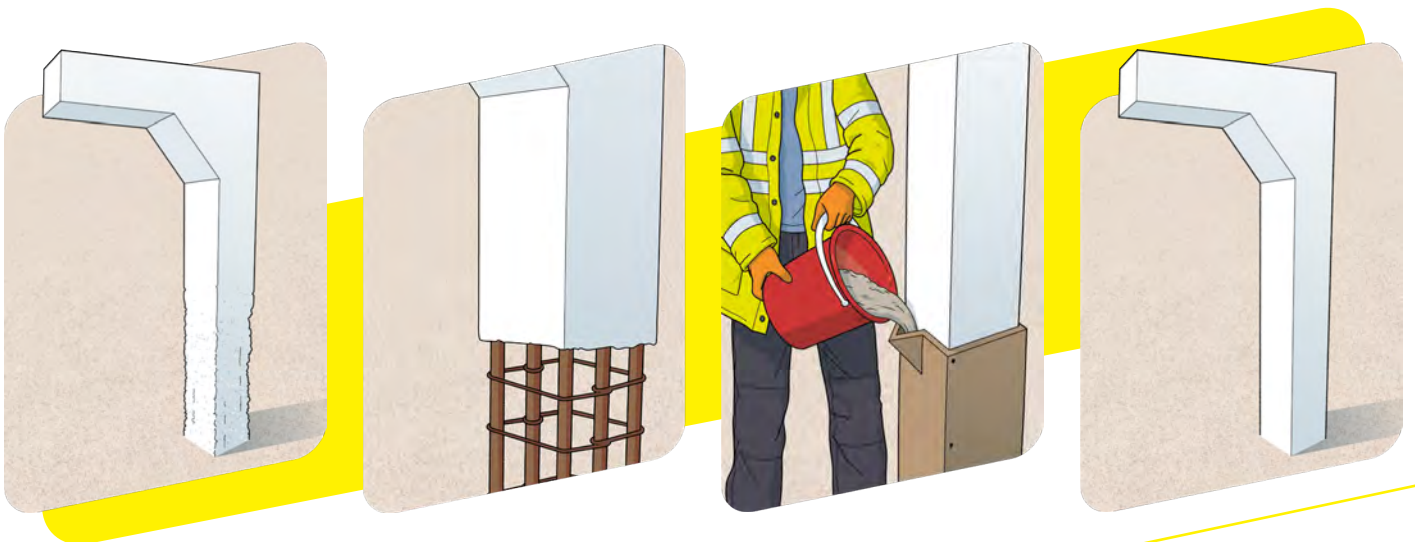


Large scale concrete repairs, which often have congested reinforcement configurations, require high performance recasting concretes. Weber has developed products with a proven track record spanning many years and meeting the stringent requirements of the National Highways specifications and other leading authorities.

Pre-blended, high flow, cementitious concrete based on rapid hardening Portland cement and non-reactive aggregates. Requiring only the addition of water, they produce high strength recasting concretes which incorporate shrinkage compensators.

**webercem advanced** repair concrete can be gravity fed or pumped via suitable equipment and can be used in the repair of various structures in an assortment of markets...

- Repair of concrete to bridge structures to National Highways specification
- Replacement of defective concrete to beams and crossheads
- Repair of car parks, buildings, balconies and stairwells
- Coastal structural repairs to jetties, piers and seawall reconstruction
- Repairing concrete columns, beams, walls and soffits





## webercem advanced repair concrete

### Flowing recasting repair concrete

- Ideally situated in structural elements where reinforcement is congested
- Rapid strength development, reducing repair time possession
- Complies with BS EN 1504-3 as an R4 repair mortar

A pre-blended cementitious repair concrete which complies with the National Highways Specification for Highway Works white book Series 5700 Structural Concrete.

### *Features & Benefits*

- Permanent structural repair concrete
- Contains non-reactive aggregates and a low soluble alkali cement content
- Rapid strength development 35MPa in 3 days, reducing repair possession times
- Dimensionally stable, forms an integral bond to existing concrete and restores structural integrity with proven durability
- Variable application thickness providing flexibility of use from a minimum of 25mm
- Free-flowing recasting repair concrete allowing the formation of intricate falsework
- Shrinkage-compensated to avoid shrinkage cracks and enhance durability

## webercem advanced repair concrete CP

### Low resistivity flowing recasting repair concrete

- Can be used with electro-chemical cathodic protection systems
- Ideally situated in structural elements where reinforcement is congested
- Rapid strength development, reducing repair time possession

A pre-blended cementitious, high strength flowing repair concrete. Contains non-reactive aggregates and a low soluble-alkali cement content suitable for use where cathodic protection will subsequently be used.

### *Features & Benefits*

- Dimensionally stable, forms an integral bond to existing concrete and restores structural integrity with proven durability
- Variable application thickness providing flexibility of use
- Does not contain micro silica
- Total water-soluble sulphate content of concrete,  $\text{SO}_3$  does not exceed 4%
- Complies with National Highways specifications for use on highway structures
- Class R4 repair product meeting the requirements of BS EN 1504-3



Midland Links, M6 Motorway,  
**webercem repair concrete,**  
**webercem repair concrete CP**  
& **webercem spray DS**



# Hand Placed Repair Mortars

webercem R4 duo

webercem mortar CP

webercem HB30

webercem HB40

webercem bondcoat

webercem fairing coat



Hand placed materials used in patch repairs are polymer-modified to give additional impermeability and a degree of flexibility. They are available in several grades of strength, are high-build and can be used to level and protect concrete. Mortars are always applied onto a bonding coat that improves the adhesion to the steel reinforcement and concrete substrate.

- Easy to apply
- Pre-blended eliminating site mixing errors and variations in quality, availability and grading of local cements and aggregates, just add clean water
- High build mortars to repair building facades
- Overhead and vertical repairs to soffits, decks and columns,
- Repair of voids and honeycombed areas
- Repairs to bridge and highway structures



## webercem R4 duo

### 2-in-1 R4 repair mortar and R3 fairing coat

- Lightweight, high build mortar for overhead and vertical repairs
- Complies with BS EN 1504-3 as an R4 mortar or R3 fairing coat
- Excellent levelling properties when used as a fairing coat

Dual purpose, single-component, polymer-modified cementitious mortar, designed for structural concrete repairs. It requires only the addition of clean water to produce a low permeability, high strength mortar for both soffit and vertical repair situations as well as a levelling solution.

### *Features & Benefits*

- Dual-purpose product that can be used as a repair mortar and/or fairing coat
- High build properties – up to 75mm vertically and 75mm in an overhead repair, without formwork when used as an R4 mortar
- Easy to apply, with excellent application properties
- When used as a fairing coat, 3mm of coverage provides as much protection against CO<sub>2</sub> diffusion as 30mm of low-permeability concrete or 300mm of high-permeability concrete

## webercem mortar CP

### R4 mortar for cathodic protection & encapsulation of sacrificial anodes

- Can be used with electro-chemical cathodic protection systems
- Versatile application by pump or trowel
- R4 repair mortar suitable for structural elements

A single-component cementitious mortar needing only mixing with water to produce a mortar with low resistivity, suitable for patch repairs on concrete structures where cathodic protection systems are to be used and encapsulation of sacrificial anodes is required.

### *Features & Benefits*

- Good bond to concrete – damp or wet
- Durable – does not crack or craze when applied and properly cured
- Easy to use – can be mixed mechanically or by hand
- Easy to apply – can be applied easily with a spray pump or by trowel without slumping
- Easy to finish – good smooth finish obtainable with a float or sponge. Provides a cohesive and level surface suitable for overcoating.
- Contains more than 400kg/m<sup>3</sup> of ordinary Portland cement to EN 197-1, the maximum size of aggregate does not exceed 2mm, the total chloride ion content is less than 0.1% of cement, the resistivity at 28 days saturation is between 5kΩcm and 15kΩcm.

## webercem HB30

### Acrylic-polymer modified, high build facade repair mortar

- Lightweight, medium strength mortar for soffit and vertical repairs
- Complies with BS EN 1504-3 as an R3 mortar
- High build mortar to repair concrete building facades

A single-component cementitious mortar, designed for concrete repairs to facades where high compressive strength is not the major consideration. It requires only the addition of clean water to produce a lightweight, low permeability, medium strength mortar suitable for both soffit and vertical repair situations.

### *Features & Benefits*

- High build properties - up to 75mm vertically and 50mm overhead, without formwork depending on size of the repair
- Easy to apply, with excellent application properties
- Low permeability to water, carbon dioxide and chlorides
- Achieves 30 N/mm<sup>2</sup> in 28 days

## webercem fairing coat

### Cementitious levelling mortar for concrete

- Polymer-modified
- Easy to apply, providing a smooth and level surface
- Good adhesion to concrete and Weber repair mortars

A single-component mortar needing only mixing with water to produce a high-quality surface levelling mortar compatible with most concrete surfaces or Weber cementitious hand-placed repair mortars. This product has been formulated to comply with the requirements of BS EN 1504-3 as an R1 mortar.

## webercem HB40

### Acrylic polymer-modified, high build structural repair mortar

- Lightweight, high-strength mortar for soffit and vertical repairs
- Complies with BS EN 1504-3 as an R3 mortar
- Fibre reinforced

A single-component cementitious mortar, designed for structural concrete repairs. It requires only the addition of clean water to produce a lightweight, low-permeability, high strength mortar for both soffit and vertical repair situations.

### *Features & Benefits*

- Lightweight, structural repair mortar which allows rapid completion of work
- High build properties - up to 75mm vertically and 50mm in a soffit repair, without formwork
- Contains fibres and spray-dried acrylic polymer
- Easy to apply, with excellent application properties
- Achieves 30 N/mm<sup>2</sup> in 28 days

## webercem bondcoat

### Polymer-modified cementitious bonder for repair mortars

- For bonding of Weber repair mortars
- High initial grab
- Multi-purpose primer for both steel and concrete

A single-component cementitious bonding aid. It requires only the addition of clean water to produce a bonding slurry for **webercem R4 duo**, **webercem HB30** and **webercem HB40** mortars. This product has been formulated to comply with the requirements of BS EN 1504-3 for a bonding primer.



# Concrete Protection

webertec aquapel crème

webercote smooth

webertec MCI

webercote primer



## webertec aquapel crème

High-performance, silane-based water repellent

- Suitable for application onto concrete, blockwork, renders & masonry
- One coat application
- Improves freeze/thaw resistance of treated surfaces

An aqueous, creamy, silane-based water repellent. It is designed to penetrate deeply into the concrete to offer optimum protection against absorption of water and pollutants as well as freeze/thaw cycles.

## webercote smooth

Protective anti-carbonation coating

- Excellent anti-carbonation properties
- 15-year life expectancy
- Both protective and decorative

A ready-mixed, anti-carbonation coating with a minimum 15 year life expectancy. webercote smooth protects from carbonation while also providing a decorative finish. It can be applied by brush, roller or spray and has been formulated to comply with the requirements of BS EN 1504-2. Available in four key colours.

## webertec MCI

Surface applied ready-mixed migrating corrosion inhibitor

- Reduces rate of corrosion
- Decreases water absorption
- Easy to apply

A clear, surface-applied corrosion inhibitor designed to reduce the rate of corrosion by penetrating the concrete to form a protective barrier.

It can be applied to concrete surfaces that have not been subject to repairs. If required, it can be applied prior to the application of **webercote smooth** or **webercem fairing coat**. The inhibition process reduces the need to cut out and repair more concrete than is necessary. However, as it depends on capillary absorption, penetration is more effective in dry concrete.

## webercote primer

Low-viscosity stabilising sealer

- Low viscosity stabilising sealer and primer
- For use with webercote smooth protective coating

A low-viscosity surface sealer and stabiliser formulated to penetrate the surface of permeable, dusty substrates and to consolidate them.

# Case Studies



The Millennium Bridge, London,  
**webercem repair concrete** and  
**webercem precision grout SP**





## Project: *Coronation Parade, Folkestone*

**Product:** webercem spray RS

**Client:** Shepway District Council

**Applicator:** Concrete Repairs Ltd

Coronation Parade, located in an exposed part of the Kent coast and originally built in the late 1930s, had suffered from both impact damage and chloride ingress due to the continuous wave action from the tide. This in turn led to corrosion of the steel reinforcement and associated concrete spalling. The poor condition of the structure meant that hydro-demolition with high-pressure water jetting was required to break out large areas of defective concrete.

It was necessary that the repairs had to include a method that would be suitable for working within the short low-tide time window. **webercem spray RS** a polymer-modified, rapid-setting (within 15 minutes), dry-sprayed concrete, ideal for concrete repairs where time constraints demand early strength gain was specified. The formulation provides reduced rebound and excellent sprayability and conforms with BS EN 1504-3 as a Class R4 repair product.



## Project: *Deansbrook Viaduct - M1 Motorway*

**Products:** webercem spray DS, webercem spray RS, webertec EP mortar

**Client:** National Highways

**Contractor:** Balvac

Deansbrook Viaduct was badly damaged in April 2011 when fire broke out in a scrap yard beneath. Concrete repairs, parapet and bearing replacement, and new bridge joints were essential to ensure the continued safety of the structure.

The viaduct was constructed with reinforced precast concrete beams and when subjected to the severe heat, the soffits of the concrete beams spalled and delaminated. The gaps that formed between the beams were filled with **webercem spray DS**, structural repair concrete which is ideally suited for the repair of fire damaged concrete structures.

**webercem spray RS**, was used where a more rapid strength development was required, it is particularly valuable when application is hampered by restricted access and difficult time constraints.

The installation of temporary bearing props required the use of **webertec EP mortar**, a high strength epoxy resin mortar for repairs, bedding and fixing. This high performance mortar is stronger than concrete in less than 24 hours.





## Project:

# Stonebyres Hydro-electric Power Station, Lanark

**Products:** webercem HB30, webercem fairing coat, webertec aquapel crème, webersil P

**Client:** Drax Group

**Applicator:** Zenith Structural Access Solutions      Photos: Drax Group

Stonebyres, an art-deco building which is designated as a site of national architectural importance, is capable of generating 6MW of electricity and provides renewable electricity for 17,000 homes. As with many old buildings, the power station requires care and maintenance. With the location being so close to water, moisture had exacerbated some of the problems.

To make repairs to the concrete structure, **webercem HB30**, a Class R3, polymer-modified, high build repair mortar was specified along with **webercem fairing coat** to infill surface imperfections. Breathability was a key requirement to avoid further moisture building up so **webertec aquapel crème** was applied to the external walls making them highly water repellent protecting against absorption of water, avoiding carbonation and chloride ingress. The final coating specified was **webersil P**, a silicone-enhanced masonry paint to provide a hydrophobic and low-maintenance finish in the colour of the original building.



## Project:

# Newhaven Sea Wall

**Product:** webercem spray RSF

**Client:** Newhaven Port & Properties

**Applicator:** AJC Contractors

Following three consecutive severe storms, the 140-year-old Newhaven Sea Wall required repairs to ensure the structure continued to protect the port.

To address the damage, **webercem spray RSF** a polymer-modified concrete repair product with fibre reinforcement was specified. The fibres within the product bind it together allowing for a thicker build-up and increasing the tensile adhesion strength. Ideal for marine environments **webercem spray RSF** is rapid setting; within just one to two minutes the initial set is complete and after 15 minutes the tide can come in and will not scour it.

Sean Cummins, AJC Contractors said "Even when we've had as little as 20 minutes before we'll be impacted by the tide, we've never had any issues using Weber's products. It can be sprayed on with a thickness of up to 400mm in just one application, this means that we don't have to wait around to re-layer the material; we can build it up thicker first time, which saves us time and money."







## Project: *Midland Links R173*

**Products:** webercem repair concrete, webercem spray DS

**Client:** National Highways

**Contractor:** Interserve (Concrete Repairs), Volker Laser (CP Installation & Overlay)

The elevated motorway sections of the M5, M6 and M54 handle one of Britain's busiest motorway routes in the heart of the midlands. These six lane motorways are constructed as elevated viaducts to avoid the existing road and canal networks below. These structures have been plagued with problems relating to the condition of the concrete cross head beams and soffits. Delamination of the concrete is wide spread and steel reinforcement has corroded unabated for a number of years.

Working in conjunction with National Highways, Weber specified **webercem repair concrete**, a flowable, micro concrete suitable for the reinstatement of defective concrete which fully complies with the National Highways Area 9 specification class 29F repair concrete. **webercem spray DS** was also used to form an overlay to the titanium ribbon cathodic protection system.

These products were specified inline with the National Highway's requirement to include cathodic protection to any repairs to increase the life span of the structure and improve the whole life costs of the repair.



## Project: *Charlestown, St Austell*

**Product:** webercem spray DS

**Contractor:** Alun Griffiths Civil Engineering & Construction

**Applicator:** Gunitite and Shotcrete Services

Rapid supply and delivery of 6,000 bags of **webercem spray DS** were made to Charlestown Harbour in St Austell after a cliff face collapsed due to a landslide, endangering life and property.

A 10mm steel mesh was fixed to the rock face with rock anchors before **webercem spray DS** was applied to secure the remaining cliff face using a dry spray system. The dry spray process conveys a predetermined ratio of cement and aggregate without added water. The mixture is fed into a pump, pressurised, and introduced to a high velocity air stream. The product is delivered through neoprene hoses to the spraying nozzle where it is atomised with clean water and hydrated to the correct consistency to project the material into place.

Due to the urgency of the situation, the work was completed with two pumps and two nozzlemen working together over a weekend, to return the harbour to a stable and safe condition.



## Technical support and services

Weber has built a reputation for its technical support, both at design and on site during the application programme.

Qualified civil engineers and experienced specialists are available in the field to provide important design and preparation advice to specifier and contractor and support to applicators as the project progresses.

While these teams can assist when problems develop, their main purpose is to address issues vital to the successful completion of a project before the problems occur and assist all involved in reaching the 'right first time' goal.

## Training

Based on its strong knowledge and experience of its market, the Weber training programmes meet the needs of its customers. Weber has invested in dedicated training facilities which offer the opportunity for both theoretical and practical training with conference room and purpose designed practical areas.

One-day courses for training on repair and maintenance techniques are undertaken at our Flitwick head office. Subjects include structural concrete repair, bedding and grouting.

Interest in the availability of training should, in the first instance, be directed to your local Specification Sales Manager or Weber direct on **01525 718877** or email: **mail@netweber.co.uk**

## Recommended applicators

Experienced labour is more and more difficult to locate, especially in the application of technical products where the standard of work left reflects directly on specifier indemnity. Weber will put specifiers and clients in touch with specialist applicators that have shown they can produce good quality work. A selection of recommended applicators can be supplied for major projects detailing their range of specialities, skills and resources, all will have experience in successfully applying Weber materials.



*Francis Holland School, London*

**webercem R4 duo**

The cracks around the building varied in size and depth. To address the repairs, a product that could be applied both vertically and horizontally as well as being used for deep repairs, smoothing and levelling was required. As a two-in-one R4 repair mortar and R3 fairing coat, **webercem R4 duo** was applied by hand to make the structural repairs and create a smooth paint-grade finish.

## Quality assurance and guarantees

Totally committed to quality, customer service and the ongoing development of high performance materials, Weber provides a Ten Year Materials Guarantee. The Weber Ten Year Guarantee covers all Weber products as long as they have been applied in accordance with the company's specification, instructions and good working practice. This guarantee does not affect your statutory rights.

Quality Assurance in manufacture is maintained through the use of modern plant and stringent quality testing. All facilities have regularly monitored quality systems and procedures in place and Weber has made considerable investment in achieving and maintaining the highest possible standards available. BS EN ISO standards are an important measure and control of the company's determination to follow these key drivers. All sites currently operate to BS EN ISO 9001:2000, BS EN ISO 14001 and BS EN ISO 45001.



*Hunterston Jetty,  
Hunterston B  
Nuclear Power Station*



**webercem spray DS &  
webercem spray CP**

Over 100 tonnes of **webercem spray DS** was used in the £1.3m jetty refurbishment, the high build repair concrete allowed up to 150mm thickness to be applied in a single pass even on vertical and overhead faces without additional mesh reinforcement. The installation of a cathodic protection system was supported using **webercem spray CP**, a low-resistivity, structural repair concrete which was used to embed the sacrificial anodes.

## Standards

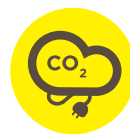
As of 1st Jan 2009 BS EN 1504 became the standard to which all concrete repairs & protection projects must be specified. Weber Concrete Repair and Protection products listed in this guide have all been tested and adhere to the industry requirement of BS EN 1504 standard (Products and systems for the protection and repair of concrete structures – Definitions, requirements, quality control and evaluation of conformity).

A number of Weber repair concrete products also comply with the National Highways Specification.

## Sustainability

As part of Saint-Gobain's wider sustainability mission to become carbon net zero by 2050, Weber has its own sustainability targets to become a more sustainable business.

Weber's sustainability pledge is driven by three target pillars which aim to enhance people's health and wellbeing whilst reducing the impacts on the natural environment, underpinned by communication to embed a sustainability culture throughout the business.



*Carbon & climate*



*Resources & circulatory*



*Health & wellbeing*

We are committed to making the world a better home, and caring for people and the planet by reducing the environmental impact of our products. We're always striving to improve our products and services whilst adapting to our customers needs to support them and their business.





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