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Solutions for Structural Waterproofing

BELOW GROUND



Resistant to 100m
Head of Water



Non-Hazardous,
Odourless Products



Ideal for Application
onto Damp Substrates

Below Ground Structural Protection

Suitable for both refurbishment and new build works, Flexcrete offers a wide range of impermeable, sulphate resistant, cementitious coatings for the structural waterproofing of below ground and water retaining structures.

Modern construction techniques enable structures to be built deep below ground level, making it a significant challenge to seal against water infiltration. Rising water tables around the world have also created an increased demand for reliable tanking systems for basements, tunnels and other underground structures, many of which were not originally designed to resist water ingress. Effective waterproofing is therefore essential at many stages in construction in order to preserve a long service life.

Protection for Underground Structures

Whether as part of the original design or as a subsequent remedial measure, Flexcrete's structural waterproofing and tanking systems offer practical, long-lasting solutions to a range of typical problems. Our thin-film cementitious coatings can help reduce the cost of post-construction underground structural waterproofing and, in most cases, the waterproofing will last for the design life of the structure.

Waterborne & Environmentally Friendly

With water-based, non-hazardous formulations, Flexcrete products can be safely applied in confined spaces and cure rapidly without releasing any strong odours or hazardous solvents. The range also includes mortars and coatings which are approved under Regulation 31(4)(a) for use in public drinking water supplies.

Ideal for Demanding Conditions

Flexcrete's cementitious coatings are designed to offer the ultimate waterproofing protection. Perfect for application to damp surfaces, they resist both positive and negative water infiltration at pressures up to 10 bar. They also offer excellent chemical resistance and are ideal for sealing secondary containment facilities or bunds to eradicate the possibility of aggressive substances leaking from storage tanks and silos into groundwater.

Flexcrete's materials are perfectly suited to meeting the demands of deep level construction and, when used in new construction, specialist linings can be applied without waiting for a full cure of the substrate concrete.

Performing Under Pressure

Flexcrete's structural waterproofing range has been specially engineered to cope with the extreme demands of below ground applications:

- Able to resist 10 bar water pressure
- Resists aggressive groundwater
- Ideal for application in damp environments
- Ultra-low VOC content - perfect for use in confined spaces
- Approved under Regulation 31(4)(a) for use in contact with potable water & WRAS listed



Flexcrete's structural waterproofing systems provide a long-term, cost-effective solution.

Typical Structural Waterproofing Problems and Challenges

Flexcrete's innovative systems are engineered to provide reliable waterproof protection for a wide range of commercial buildings and infrastructure.

► Waterproofing in New Construction

PROBLEM:

Damp or leaking underground structures and piled walls may often be below the water table. They therefore need effective waterproofing to prevent damage to fixtures and fittings.

SOLUTION:

Masonry, brick and concrete substrates can be effectively waterproofed by applying two 1mm coats of **Cementitious Coating 851**. It is suitable for use both internally and externally and can resist positive and negative pressure under 100m head in water retaining and below ground structures. Where pointing requires reinstating, or a fair-faced, waterproof render is required then **Monolevel 844SP** can be used in thicknesses up to 6mm per layer.



851 is quick and simple to apply and is an effective barrier to chloride ions.

► Moisture Suppression for Flooring

PROBLEM:

Damp or freshly laid concrete floors require an effective treatment to avoid the risk of osmotic blistering when impervious floor coatings and finishes are subsequently applied. Fast-track construction is also often a priority.

SOLUTION:

Cemprotec E-Floor can be applied to damp surfaces to form a waterproof wearing course. Tested for water permeability under 10 bar pressure, it is spread to a minimum 2mm thickness and can be cured with sand for a slip resistant finish, or using **Curing Membrane WB** when a smooth finish is required. Subsequent coatings can be applied after just 48 hours, keeping downtime to an absolute minimum so that following trades can progress.



Cemprotec E-Floor offers equivalent properties to an extra 1 metre of concrete.

► Podium Deck Waterproofing

PROBLEM:

As building owners look to maximise their sites, podium decks are often a feature of modern construction. Effective waterproofing is required that can accommodate structural movement and potential dynamic loads.

SOLUTION:

Roofdex HB is a waterborne, cold-applied liquid roofing membrane that is completely seamless and vapour permeable. Its elastomeric formulation means it can tolerate thermal and substrate movement and extreme temperature ranges without degrading. For buried roof situations, **Cemprotec Elastic** is ideal, offering a tough, flexible coating which maintains its elastomeric properties even under immersed conditions to accommodate any movement in cracks.



Cemprotec Elastic is well suited to the demands of buried roof applications.

► Leaking Basements

PROBLEM:

Dampness can be a persistent problem on the internal walls of concrete and brickwork basements and other underground structures. A reliable repair and protection system is required to provide a fully waterproof tanking solution.

SOLUTION:

Active water infiltration under pressure can be quickly arrested using **Fastfill WP**, a rapid setting, polymer modified plugging mortar. **Monolevel RM** is ideal for application to vertical, horizontal and overhead brickwork surfaces and rapidly cures to form a high performance, waterproof, fair-faced render. To prevent water infiltration through leaking joints, the system can also be reinforced with **Cemprotec 2000-S** waterproof tape.



Monolevel RM is fibre-reinforced for added strength and durability.



- Concrete Repair & Protection
- Protective Coatings
- Structural Waterproofing
- Enhanced Durability for Concrete & Steel
- Waterproofing of Roofs & Floors

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