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Solutions for Clean Water Structures









Structural Challenges in the Clean Water Industry

Flexcrete has a long and impressive history of providing effective, durable and fully certified repair and protection systems for the clean water industry. Our materials are relied upon by leading water companies all around the world for structural protection.

With an extensive product offer, ranging from rapid-setting repair mortars and levelling coats to high performance cementitious coatings, our materials are approved under Regulation 31 of the Water Supply (Water Quality) Regulations 2000. They are also listed under the Water Regulations Advisory Scheme and are CE marked in accordance with BS EN 1504, the pan European standard for concrete repair.

Flexcrete's range is ideal for containment in the clean water industry and can be used to enhance the durability of new construction, through to the refurbishment and decommissioning of water structures. Our materials can be reliably used for the treatment and upgrading of installations to extend the design life of structures and reduce maintenance cycles, in turn achieving significant cost savings.

Enhanced Chemical Resistance

Our waterproof products provide concrete and masonry with outstanding protection against typical

problems encountered in the clean water industry, such as chemical attack, cracking, joint failure and surface corrosion. Compared to normal concrete, they provide greatly enhanced chemical resistance, including exceptional protection from soft or acidic moorland water. Once cured, Flexcrete products are resistant to water under 10 bar hydrostatic pressure.

Waterborne & Environmentally Friendly

Not only are Flexcrete products engineered to perform, they are also safe to apply and cause virtually no disruption, even when water facilities are still in operation. With water-based, low odour formulations, they contain ultra-low levels of Volatile Organic Compounds (VOC's), are eco-friendly and facilitate sustainability in the built environment. Our products are also exceptionally rapid curing, and can be applied to damp substrates and in confined spaces, so any downtime is kept to a minimum.

As Flexcrete products are Portland cement-based, they are compatible with original concrete. Many are single pack and only need the addition of clean water on-site, so they are user-friendly and all equipment can be easily cleaned with water after use.

Clean Water Applications

Flexcrete's products are suitable for the repair and rehabilitation of a wide range of clean water installations, including:

- Service and impounding reservoirs
- Water towers
- Sand and gravity filters
- Contact, service and dosage tanks
- Bunds
- Aqueducts and pipelines
- Dams and spillways
- Roofs



Flexcrete products extend durability and enable the structure's original design life to be achieved.

Typical Problems and Challenges in the Clean Water Industry

The versatility of Flexcrete's products makes them ideal for treating a range of common structural problems associated with clean water installations.

Repairing Leaking Structures

PROBLEM:

Failure of concrete tanking and the degradation of brick lined reservoirs can lead to loss of water or the ingress of ground water.

SOLUTION:

Internal repairs to concrete structures can be carried out using **Monomix**, a high build, hand applied mortar. For large scale repairs, **Monomix WS** is the ideal choice and is applied using wet spray techniques. Elsewhere, defective pointing on brickwork can be reinstated using **Monolevel 844SP**. The entire surface of both brick and concrete structures can then be overcoated with **Cementitious Coating 851**, in order to provide complete waterproofing and damp-proof protection.



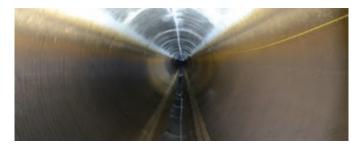
▶ Refurbishing Aqueducts & Pipelines

PROBLEM:

Water is transported many miles to major cities via aqueducts and pipelines which are under constant attack from aggressive elements.

SOLUTION:

Often with limited time available, **Fastfill**, a rapid-setting, Portland cement-based repair mortar can be used to reinstate concrete or brick pipes and channels to provide a durable waterproof repair. Its water-based, ultra-low VOC formulation makes it ideal for use in confined spaces.



Soft Water Attack

PROBLEM:

Soft or acidic moorland water attacks concrete readily, dissolving lime and leaving a weak, permeable substrate.

SOLUTION:

Once unsound concrete is removed, the substrate can be reinstated with **Monolevel 844SP**, an engineering grade waterproof screed and fairing coat. For additional long term protection, **Cementitious Coating 851** can be brush or spray applied to all surfaces to provide superior chemical resistance. **851** is approved for use in public water supplies and is reliably used by all leading water companies for its excellent waterproofing and protective properties.



▶ Roof Waterproofing

PROBLEM:

Service reservoir roofs can show signs of cracking and deterioration of joints can lead to damaging ingress of water.

SOLUTION:

Live cracks can be sealed with a 2mm coat of **Cemprotec Elastic**. Over formed joints and details where differential movement is expected, **Cemprotec Elastic** can be reinforced with **Cemprotec 2000-S**, an advanced, highly tear-resistant reinforcing tape which allows up to 600% elongation.



Approval Certification

	Steel Reinf. Protector 851	Cementitious Coating 851	Fastfill	Monolevel 844SP	Monomix	Monomix WS	Poly Admix 850	Tiefill	Cemprotec Elastic	Cemprotec 2000-S
Approval for use in public water supplies	✓	✓	✓	✓	✓	✓				
WRAS Approval	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓







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