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## Solutions for New Build Construction

NEW CONSTRUCTION



2mm Coat = 100mm  
Quality Concrete Cover



Non-Hazardous,  
Water-Based Products



Prevents Chlorides  
for 25 Years

## New Build Construction Challenges

Defects are not just confined to older buildings and structures. Challenging problems also occur on new build construction schemes, caused by a variety of factors, such as the complexity of design, variations to specification or simply poor workmanship.

**The structural challenges facing new build projects are an important consideration for designers, engineers and contractors alike. Grout loss and damage when removing formwork can result in unacceptable blemishes and poor compaction causes honeycombing. Concrete, often considered as an aesthetic finish in its own right, must meet the required standards if durability is to be assured. The Flexcrete range includes all the necessary finishing and reinstatement materials needed in new construction.**

### Repairing the Defects

Defects need to be rectified with materials that are visually and structurally compatible. We offer a range of materials to suit all applications from structural mortars for reinstating large

areas of honeycombing to colour-matched, fine grade mortars for producing a fair-faced finish.

The Flexcrete range also includes waterproof tie hole fillers and a range of high performance coatings to ensure that a watertight seal is achieved in basements and other water retaining structures.

### Reinstatement of Cover

Inadequate concrete cover adversely affects the durability of reinforced concrete. Careless fixing of the formwork or incorrect use of spacers can lead to low cover. This undermines the protection of the steel reinforcement, ultimately leading to spalling and expensive maintenance.

Flexcrete's cementitious coatings are engineered so that just a 2mm application is equivalent to a minimum of 100mm of additional good quality concrete cover. Rapidly and easily applied by brush or spray, these coatings offer unparalleled resistance to water, carbon dioxide and chlorides and never need replacing during the design life of the structure.

## Trusted Flexcrete Quality

There are many reasons why Flexcrete products have become the preferred choice on new build construction:

- High quality repair and protection solutions for the entire building envelope
- CE marked in accordance with BS EN 1504
- Environmentally friendly formulations
- Proven technology with a 30 year international track record
- Manufactured in the UK in accordance with BS EN 9001 & BS EN 14001 standards



*Flexcrete products protect many of the world's most iconic new build projects.*

## Typical Problems and Challenges in New Construction

Whether it's waterproofing, reinstating inadequate cover or simply to fast-track the construction cycle, Flexcrete has the ideal solution;

### ► Reinstating Surface Defects

#### PROBLEM:

Areas of honeycombing, blow-holes and surface voids caused by poor compaction or defects in the formwork placing resulting in grout loss. The surface requires filling to achieve the specified quality of finish.

#### SOLUTION:

A fine, formed finish is achieved with **Monolevel FC**, applied using a simple bag-rubbing technique. Available in white and grey formulations, the shades can be blended to match the colour of the parent concrete, resulting in a uniform finish. If any areas need to be cut out, reinstatement can be easily achieved using **Monomix**, and minor surface defects can be filled using **Monorub** to give a super-fine finish.



*Monolevel FC colours can be blended to match the shade of concrete.*

### ► Low Concrete Cover

#### PROBLEM:

Incorrect positioning of shutters or reinforcement and spacers, as well as problems with compaction results in low cover to the steel, which can compromise long-term durability and design life of the structure.

#### SOLUTION:

The **Monolevel** or **Monomix** range of products can be used to reinstate the profile of the concrete, whilst applying two 1mm coats of **Cementitious Coating 851** by brush or spray provides the equivalent of 100mm of good quality concrete cover. This product is also an effective barrier to chloride ions and is impermeable to water under 10 bar hydrostatic pressure, ideal for demanding applications.



*Cementitious Coating 851 exhibits excellent adhesion to both concrete & steel.*

### ► Waterproofing of Tie Holes

#### PROBLEM:

Tie holes left on removal of formwork in new construction must be filled to provide an integral, even finish. In water retaining structures the tie hole must also be made waterproof to prevent leakage.

#### SOLUTION:

Voids can be filled with **Tiefill**, a rapid setting, non-shrink repair mortar. The product has WRAS Approval and is totally waterproof, enabling it to be used in water tanks, even those containing potable water. **Tiefill** can also be employed for sealing grout holes and voids around fixings in pre-cast elements. It is supplied as a single component system requiring only the addition of clean water to give a durable high strength mortar.



*Tiefill is a rapid curing, polymer modified solution with high bond strength.*

### ► Waterproofing Concrete Decks

#### PROBLEM:

New build projects need to waterproof and protect freshly cast, green concrete with environmentally friendly products in order to fast track the construction process and achieve significant cost and time savings.

#### SOLUTION:

Flexcrete's **Cemprotect** range of water based cementitious coatings can be applied to green concrete and are totally waterproof even under a 100m head of water. With unique epoxy and polymer technology, the **Cemprotect E-Floor** and **E942** systems hydrate rapidly to form highly durable coatings with outstanding abrasion and chemical resistance that are designed to last the life of the structure.



*Flexcrete's water-based coatings for concrete decks are engineered to last.*



Structural Repair & Protection Technology from Flexcrete

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

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