

# Structural waterproofing

Suitable for both refurbishment and new build works, the Intercrete® range includes 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 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 in order to preserve a long service life.

## Waterborne and environmentally friendly

Whether as part of the original design or as a subsequent remedial measure, the Intercrete range of structural waterproofing and tanking systems offers long-lasting, practical 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.

With water-based, non-hazardous formulations, Intercrete 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

Intercrete cementitious coatings are designed to provide exceptional waterproofing protection. They resist both positive and negative water infiltration at pressures up to 10 bar and are perfect for application on to damp surfaces.

Intercrete products 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. They are also perfectly suited to 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

Intercrete structural waterproofing products have 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 and WRAS listed



Structural waterproofing systems from Intercrete provide a long-term, cost-effective solution

# Typical problems and challenges in structural waterproofing

Intercrete 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 require effective waterproofing to prevent damage to the fixtures and fittings.



Intercrete 4841 is simple to apply and is an effective barrier to chloride ions

**Solution:** Masonry, brick and concrete substrates can be effectively waterproofed by applying two 1mm coats of **Intercrete 4841**. 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 **Intercrete 4820** can be used in thicknesses up to 6mm per layer.

## 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.



Intercrete 4842 is well suited to the demands of buried roof applications

**Solution:** **Intercrete 4885** is a waterborne, cold-applied liquid roofing membrane that is completely seamless and vapour permeable. It can also tolerate thermal and substrate movement and extreme temperature ranges without degrading. For buried roofs, **Intercrete 4842** is ideal, offering a tough, flexible coating which maintains its elastomeric properties even under immersed conditions to accommodate any movement in cracks.

## Moisture suppression for flooring

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



Intercrete 4851 offers equivalent properties to an extra 1 metre of concrete

**Solution:** **Intercrete 4851** 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 **Intercrete 4870** 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.

## Leaking basements

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



Intercrete 4823 is fibre-reinforced for added strength and durability

**Solution:** Active water infiltration under pressure can be quickly arrested using **Intercrete 4809**, a rapid setting, polymer modified plugging mortar. **Intercrete 4823** 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 **Intercrete 4872** waterproof tape.