MANORTEQ Technologies

MANORTEQ®

Completing the Waterproofing

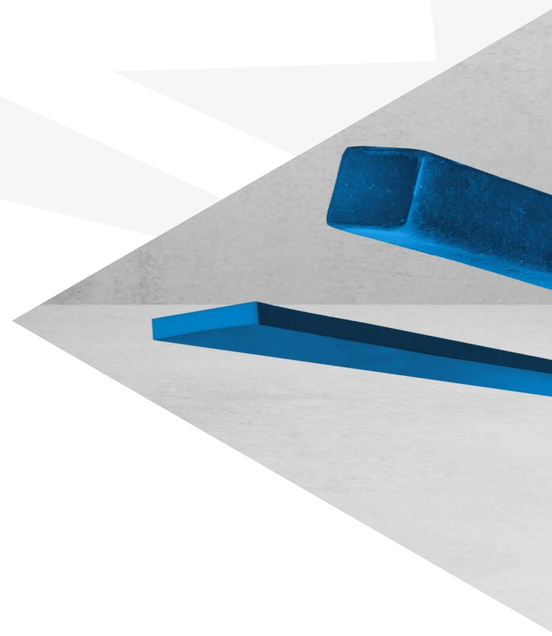
Technologies used for Active and Static Waterbars and Mortars

Technologies

Manorteq WaterBar Knowledge

Waterbars are the elements placed at a static construction joint in a concrete structure to seal voids created by concrete shrinkage. Manorteq offer waterbars in two versions, Active and Static.

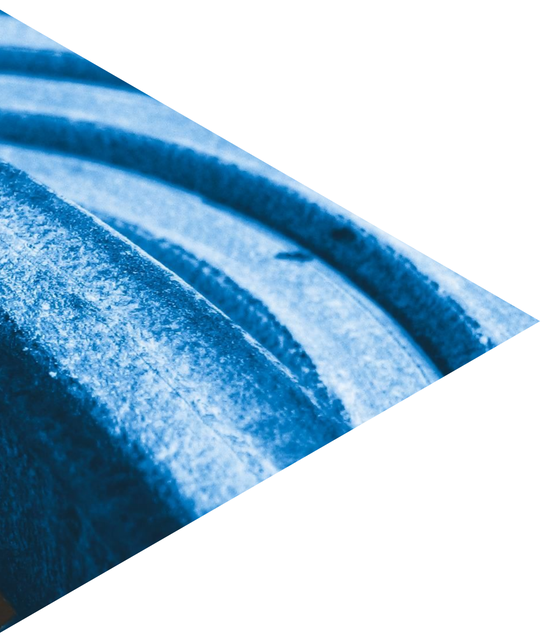
Stop water at construction joints with the technology engineers have relied on for years.



Active Options

Hydrophilic in nature, they take on water, swell and create a pressure to seal against the concrete.

Available in two versions—bentonite clay and synthetic rubber. Both serve the same purpose, although the composition of the synthetic rubber option is mouldable and therefore can offer greater adaptability into products beyond just waterbars.



Bentonite

Manorteq HydroBar Original is actually a mix of sodium bentonite and butyl rubber. The bentonite clay is the expandable element, and the butyl rubber is used to hold the bar's form. Often cheap options have a high bentonite content as bentonite is relatively cheap and is an easy way of achieving high swelling data.

It is common for cheaper bentonite waterbars found on the market to have a high bentonite, and a low butyl rubber content. Bentonite clay is relatively low cost, and is an easy way of achieving high swelling data, which can seem impressive without context.

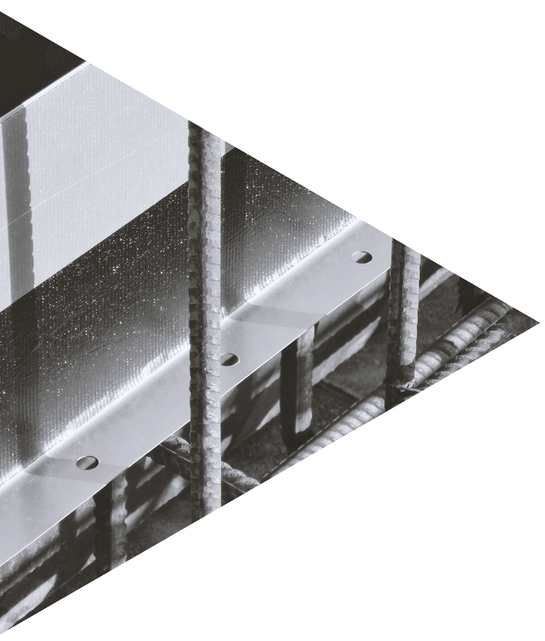
Manorteq HydroBar Original has been developed to have a tuned and balanced quantity of each - providing an increased resistance to "wash out" and a good resistance to a wide range of chemicals.



Synthetic

Manorteq HydroBar Evo is mouldable, so a wider range of products can be developed. It is also tuneable to allow a performance to meet the relevant demands.

Manorteq HydroBar Evo is designed for contact with salt concentrations (<3%), being synthetic, it retains its shape after many wet and dry cycles. It equally has a good resistance to a wide range of chemicals and remains consistent throughout its life cycle. A solution for higher salt environment can also be available.



Static Options

A physical, metal barrier with a secondary mechanism of waterproofing, either bentonite or bitumen, used to seal the joint tight.

The physical barrier creates a tortuous path to prevent water ingress, the secondary mechanism on the 'fins' provide additional protection.

Bitumen - creates a bond between the concrete and the waterbar to close the passage of water.

Bentonite - provides a swelling seal between the steel and the concrete.

Technologies

Manorteq Mortar Knowledge

Manorteq Structural Mortar Range

Xypex Technology is the backbone of the Manorteq Structural Mortar Range. It is this performance that gives the waterproof repair mortar range the ability to withstand 5 bar hydrostatic pressure (limit of test).

With regard to the mortar structural performance, it is European Norms that explain and categorise products effectively, and as the Manorteq range is of European origin, the range fits neatly into these norms.



EN 1504-3

Products and systems for the protection and repair of concrete structures – Structural and non-structural repair. This defines the performance requirements for products used, it applies to mortars and classifies them into repair classes.

The classes are:

CLASS R1 Typically, >10MPa used for non-structural, cosmetic, or surface repairs.

CLASS R2 Typically, >15MPa used for non-structural, general-purpose repairs.

CLASS R3 Structural repair mortar, typically >25MPa

CLASS R4 Structural repair mortar, typically >45MPa

EN 1504-6

Products and systems for the protection and repair of concrete structures – Anchoring of reinforcing steel bar.

Specifies performance requirements for products for anchoring reinforcing steel into concrete. It defines requirements for load capacity, bond performance, displacement under load, creep behaviour, durability, and resistance to environmental effects.

EN 12390-8

Testing hardened concrete - Depth of penetration of water under pressure

This standard specifies a test method for determining the depth of penetration of water under pressure in hardened concrete.



Freezteq Renders

Breathable, not structural or waterproof, the Freezteq Breathable Render System are mortars that allow quick reinstatement of finishes after a Freezteq chemical Damp Proof Course has been applied.

Once the chemical DPC has been installed, water will remain in the wall until it evaporates out, approximately 1 mm per 24 hours. Using a waterproof mortar will trap the water inside the masonry, damaging the fabric of the structure.

The Freezteq Breathable Render System specifically deals with this issue. It allows that moisture out, whilst simultaneously keeping the physical mortar dry, and providing a mortar warmer to touch than a traditional cement based mortar.

Freezteq BR-Mortars allow you to immediately start the reinstatement of finishes after DPC application.

Technologies

Manorteq Mortar Knowledge



AquaRend*

R3 Waterproof, Structural Repair Mortar Range

Rehabilitate. Protect. Waterproof.

A versatile, R3 waterproof repair mortar, perfect as a render or screed. Engineered as a complete waterproofing system, it protects concrete and masonry in vertical, horizontal, or overhead applications.

Applications

- Concrete, concrete block, brick, and stone substrates
- Ideal for waterproofing and repair work
- Complete system for long-lasting protection

* Excluding AquaRend S-Fine



AquaRend S-Fine

R2 Mortar with Xypex crystalline technology

Fine. Smooth. Quick Return to Service.

An R2 finishing mortar to provide a super fine finish applied at 2mm - 4mm

Applications

- Over a concrete repair for a smooth finish.
- Over AquaRend mortar for a smooth finish.
- Over Xypex repair materials to provide a quick return to service, shortening the outage time.



ReadyProof

R4 Waterproof, Structural Repair Mortar Range

Strength. Durability. Ready-to-use.

An R4 structural repair mortar designed for enhanced strength and durability. Perfect for smaller-scale projects where a full truckload isn't needed, and applied seamlessly on vertical, horizontal, and overhead surfaces.

Applications

- Waterproofing and repairing concrete structures
- Ideal for targeted repairs or precision work
- Very small projects

Technologies

Manorteq Mortar Knowledge



NonShrink

High Strength, Non-Shrink, Grout Range

Fill. Seal. Protect.

A high-strength, waterproof grout that maintains the continuity of crystalline waterproofing while providing enhanced chemical resistance. Perfect for critical applications filling small voids, precision gaps, and anchor holes.

Applications

- Voids/gaps in waterproof precast elements
- Under machinery installations
- Infill zones needing reliable structural protection



Freezteq BR System

Fast, Breathable and Finishes Reinstatement Mortar System

Breathable. Salt-Encapsulating. Dry-to-Touch.

Freezteq BR-System consists of highly porous, water-repellent mortars designed to trap hygroscopic salts within the mortar and give architectural finishes.

Designed, primarily, for the internal restoration of damp masonry structures, the Finish Mortar can also be used as a dry 'warm' finish over the AquaRend Range, removing the natural coldness of cementitious materials in habitable spaces.

Applications

- Quick reinstatement of finishes after a chemical DPC has been applied
- To manage salt migration from masonry
- Add a 'warm' finish to AquaRend

Technologies

Manorteq Names Explained

Waterbars and Accessories

Range

WaterBar Rigid	A static waterbar with a secondary element.
HydroBar	An active, swellable waterbar.
FormPlug	Plug to be fitted after formwork is stripped to seal the internal section of a tie bolt sleeve.
FormRing	Ring to cast into the concrete to seal the external side of the tie-bolt sleeve.
SynMastic	Synthetic swellable mastic to fill voids under waterbar. Can be used as an adhesive.
Fixing Glue	Adhesive for HydroBar, especially HydroBar Evo.

Type

Original	Bentonite clay mix for normal conditions.
Evo	Synthetic rubber mix for normal and salt conditions <3%.
KJ	Kicker Joint, although fits all slab to wall joints.
CJ	Construction Joint fits concrete joints of the same aspect – wall to wall or slab to slab.
CI	Crack Inducer fits approximately where a joint should be. Extending the size of the pour, whilst controlling, managing and waterproofing intentional cracks.

Mortars

Range

AquaRend	Waterproof* and an R3 structural repair mortar >25MPa*.
ReadyProof	Waterproof and an R4 structural repair mortar >45MPa.
NonShrink	Waterproof and a high-strength non-shrink grout.
Freezteq	Architectural breathable mortars.

Consistency

Thix	Thixotropic, has a viscosity that decreases when a stress is applied, such as when mixed. It is fluid but holds its own weight in application.
Flow	Pourable, a fluid consistency specifically made to pour as a horizontal application.
Fix	Reinforcement for use with relevant mortars.

Thickness / Size

Regular	Most likely application thickness.
Base	Build up layer.
Fine	Typically, a thin application.
Finish	Fine finishing layer.
S-Fine	A fine, super smooth, finishing layer, or a Quick Return to Service "cap coat" over Xypex repair materials.
B	Basalt ≈1mm.
S	Steel ≈4mm.

* This statement is correct for all Manorteq Mortar products except Manorteq AquaRend S-Fine, which is not an R3 mortar, is not waterproof and can only come in one consistency, as it is a finishing layer specific to the AquaRend range.



Increase your opportunities with Manorteq mortars and joint solutions.

Contact us

info@manorteq.com
+44 (0)1684 577756
www.manorteq.com