

Barrier Mortar (Joint & Corner Sealing)

Initial set at 20°C	12 to 18 Hours
Working time at 20°C	Up to 1 hour
Resistance to positive water pressure	0.7MPa (70m head)
Resistance to negative water pressure	0.4MPa (40m head)
Chemical Base	Portland cement fine aggregate and polymers
Finish	Cement grey
Fresh mortar density	2.1 kg/l (1.8 kg/litre powder)
Compressive strength	28 days – 40 N/mm ²
Flexural strength	28 days – 9 N/mm ²
Tensile adhesion strength	>1.5 N/mm ² failure in substrate
Permeability to water vapour	3 MNsg ²
Fillet dimensions	25 to 40 mm

DESCRIPTION

Kingfisher “Barrier Mortar” is a non-shrinking, hydrophobic repair mortar, supplied as a powder in 20kg buckets. It is an essential reinforcing component of the Kingfisher “Aquatech Tanking System”. It is used to create high integrity fillet joints at wall/wall and wall/floor junctures and may be deployed as a general repair mortar in any application where shrinkage must be avoided.

Companion/ related products:

- Kingfisher K-X11 liquid copolymer admixture
- Kingfisher Aquatech
- Kingfisher Tank Plug
- Kingfisher Anti-Sulphate Solution

Because these products make up the “Aquatech Tanking System”, it may be useful to read this technical data sheet (TDS) in conjunction with the “Aquatech” TDS for an overview of where “Barrier Mortar” fits into the system as a whole – published on our website www.kingfisheruk.com.

USES

- **Renovation:** -Professional waterproofing of existing basements in the context of a renovation or conversion. Seals vulnerable wall/wall and floor/wall junctions
- **Extreme water retaining situations:** i.e. swimming pools, potable (drinking) water tanks, lift shafts, service tunnels, water treatment plants and irrigation channels.
- **New Build:** Basements and partial basements as a part of a primary waterproofing layer for positive tanking before secondary membrane (e.g. cavity drain membrane).
- **Concrete Floor Repair:** As a waterproofing non-shrink mortar to repair cracks or open joints.

Manufacturers to the building industry

Specialist Coatings



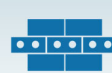
Sealants

Roof Coatings



Paving Sealers

Timber Treatments



Damp Proofing

Membranes



Basement Waterproofing

PREPARATION

OLD BRICK/BLOCK OR STONEMWORK:

Tanking requires both mechanically stable walls and floors. In full tank situations such as basements, the walls should be tanked first, then the floor. Floors MUST be concrete, you cannot successfully apply “Barrier Mortar” or “Aquatech” tanking to timber floors, floating floors, tiles, or stone slabs.

EXISTING CONCRETE FLOOR:

a) Clean all loose material from the floor by vacuuming. Check the condition of the concrete carefully to ensure substrate is strong enough i.e., $>20\text{N/mm}^2$. Many older basements had poor quality concrete poured into them so check for level, major cracks, soft spots, and surface delamination. If the concrete is not mechanically sound enough to support the application of “Aquatech”, it may have to be broken out and a new concrete floor installed.

b) If the floor is tiled, you will need to break the tiles out to examine the concrete floor beneath.

c) Remove all traces of tars, bitumen, adhesives, and other residues either by floor grinder or similar mechanical means.

d) To accommodate the “Barrier Mortar” use a grinder to cut a small (25mm x 25mm) angled “V” into the floor at 45 degrees around the perimeter of the basement at the wall/floor junction. Note: You can skip this step if there is sufficient floor space to form the “Barrier Mortar” fillet above the floor, but this will obviously depend on whether you intend to dry line with a stud frame or plaster directly to the tanking.

Polished concrete or new concrete with laitance will need to be acid etched or scabbled to gain an adequate surface key.

NEW CONCRETE FLOOR:

If the basement has a simple earthen floor or stone slabs, you will almost certainly need to install a new concrete floor.

a) Check headroom. Head height is often restricted in basements so measure the floor to ceiling height and subtract the concrete depth (usually at least 200mm) your architect/engineer recommends. It is sometimes necessary to excavate the floor of a basement to achieve a liveable headroom – again check with the architect.

b) Lay in a DPM (damp proof membrane e.g., Visqueen) and lap it up the wall past the proposed FFL (finished floor level).

c) Pour the concrete over the DPM to the desired FFL and leave to cure for at least 14 days.

d) Trim the excess DPM with a contractor’s retractable knife and to accommodate the “Barrier Mortar” use an angle grinder cut a “V” joint into the floor at 45 degrees around the perimeter of the basement at the wall/floor joint.

Note: You can skip this step if there is sufficient floor space to form the Barrier Mortar fillet above the floor, but this will depend on whether you intend to dry line with a stud frame or plaster directly to the tanking.

APPLICATION

Pour approximately 3 litres of clean water into a 25L mixing bucket. Add the “Barrier Mortar” powder slowly to the water, whilst mixing with a slow speed power paddle for approximately 5 minutes or until the mix begins to stiffen. Allow to stand for 5 minutes, before checking the consistency. You are aiming for a workable mortar, so adjust the powder/ water ratio fractionally until you achieve a mix that suits.

Kingfisher “Barrier Mortar” should always be applied to a slightly damp or partially cured substrate.

Manufacturers to the building industry

Specialist Coatings



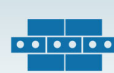
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Form a 45° angle fillet (triangular profile) into the channel of the wall/floor joint and at the vertical wall/wall joints. When used in conjunction with the “Aquatech System”, apply a 25mm fillet into all vertical and horizontal joints. Ideally it should be onto the first coat of “Aquatech” BEFORE the “Aquatech” has cured.

Where substrate is irregular (e.g stone wall), you can extend the fillet thickness from 25mm to 40mm.

Allow the “Barrier Mortar” fillet to stiffen for 2 to 3 hours and then apply the second coat of “Aquatech” to the substrate and over the “Barrier Mortar”.

NOTE: - If the wall/floor joint has any water seepage, the cut channel must be filled to flush (floor level) with “Kingfisher Tank Plug” prior to applying the “Aquatech System”.

The “Barrier Mortar” can also be used as a general repair compound for patch filling of masonry walls and floors.

CAUTIONARY NOTES

Protect all applications from frost or accelerate drying. **DO NOT** apply if frost is expected or if the air temperature is less than 5°C over a 24 hour period.

Wash tools thoroughly between applied coats.

Be careful not to pierce the new “Barrier Mortar” or “Aquatech” with nails, screws, or other fixings. Everyone working on the project, especially joiners need to be aware that skirting boards for example must be glued in place, not nailed.

PACKAGING

Kingfisher “Barrier Mortar” is supplied in 20 Kg white plastic tubs.

STORAGE

Store in an upright position, under cover and away from high temperatures and open flames between 5°C – 30°C.

SHELF LIFE

6 months from date of manufacturer, when unopened, undamaged, and stored correctly.

HEALTH & SAFETY

Kingfisher “Barrier Mortar” is classified as an irritant and eye protection; protective gloves and overalls should be worn when handling. Avoid breathing dust particles. Before using this product read the Material Safety Data Sheet which can be obtained at www.kingfisheruk.com or by calling the Kingfisher Technical Dept. Tel: 01229 869 100.

The information given in this technical data sheet is given in good faith, based on current knowledge and experience. It relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of the company’s knowledge and belief, accurate as of the date indicated. All recommendations are made without warranty or guarantee, as to accuracy, reliability, completeness since the conditions of use are beyond our control. It is the user’s responsibility to satisfy themselves as to the suitability and application of such information for their own use.