



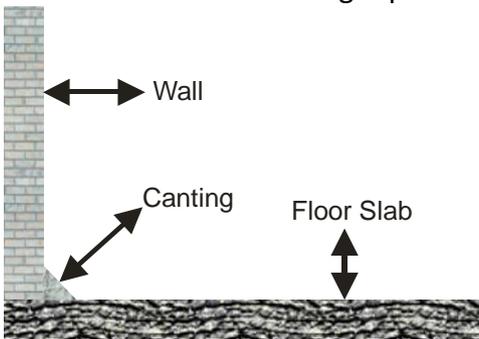
Waterblok Systems

FLEXICRETE Guidelines for Application

Waterblok Flexicrete is a latex based admixture which, when mixed with cement, creates waterproof cementitious layers. Application is by brush in two priming/bonding coats and two waterproofing coats. The waterproofing coats can be either by waterproofing coats or waterproof rendering coats. Reinforcement with Flexicrete matting is possible and in most cases advisable. Embedding of the matting occurs directly after the last prime coat application. Flexicrete matting is also ideal to render effective detail work at edges, drains, joins, etc.

Surface Preparation

1. Ensure that canting is provided at all edges and pedestals.



Canting dimensions 1" x 1" to 2" x 2"

2. Ensure that all cavities, exposed pipes, exposed Concrete Hollow Blocks (CHB) or other masonry with gaps in the wall be filled and smoothly plastered to ensure proper installation and adhesion of the flashing. Chip off all plaster, irregularities and loose sections from concrete slab. If any of this will come loose at a later stage the waterproofing will come loose with it and create a breach which could lead to leaks.
3. Check concrete slab for structural and/or other defects such as honeycombs. Best method is through light chipping and pounding with a hammer. If such defects are found, it must be repaired.
4. Existing surfaces onto which Flexicrete mixes are to be applied should be in a sound condition and free of contaminants such as oil, paint and dust. Holes and cracks should be repaired with a Flexicrete compound before new coats are applied. In severe cases surfaces may need to be treated by light scabbling to remove unsound surfaces, or treated with a hydrochloric acid and water (1:2) solution which should be well flushed prior to new layers being applied.
5. Before applying the first Flexicrete coat, the surface to be covered should be lightly dampened to break down surface tension effects. The first coat should be applied onto a damp surface with no free water present.

Prime Coat/Bonding Coat

Application of a prime coat prior to proceeding with subsequent layers improves adhesion of those layers. The recommended prime coat consists of a mixture of 2 parts ordinary Portland

cement to 1 part Flexicrete by volume. Add cement to Flexicrete and mix to a smooth, viscous but brushable slurry. Add small quantities of water cautiously to obtain desired workability.

Typical prime coat mixes:

	Flexicrete	Cement
By volume	1 part	2 parts
By mass	1 kg	6 kg
By mass (per 50 kg cement)	8 kg	50 kg

Brush onto surface at a rate of approximately 12 sq.m. per 5 litres Flexicrete and allow to dry. A second prime coat should be applied immediately prior to the next layer to be applied, which should be applied onto the wet prime.

Detail Work

1. Flashing

A flashing must be installed at all edges between the floor slab and the wall as well as at all edges of any elevated area such as pedestals, etc. The dimensions of a flashing are normally 200mm vertically against the wall and 300mm horizontally on the floor. This can vary dependant on the site conditions and requirements but should be 150mm vertically and 200mm horizontally at the barest minimum. It is also imperative that canting (see notes above) be installed to ensure proper embedding and optimum adhesion of the Flexicrete matting membrane.

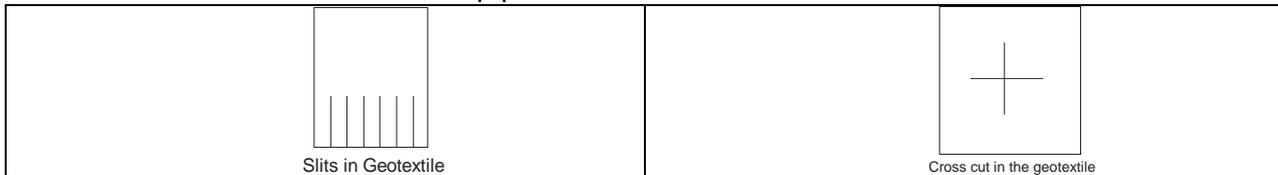
The installation is as follows:

- a) Cut the Flexicrete matting in strips (if desired flashing is 200mm vertically and 300mm horizontally the width of the strip shall be 500mm).
- b) While the last (2nd) primer/bonding coat is still wet, dip the strips of Flexicrete matting in the primer mix and immediately embed the dipped Flexicrete matting in the area where the flashing is to be installed.
- c) Repeat the above until the entire flashing is installed.
- d) Where joins need to be made, allow an overlap of 50 to 75mm.
- e) Special care should be taken in corners. The horizontal section of the matting may have to be cut and overlapped to ensure smooth embedding.
- f) When the embedded Flexicrete matting is touch dry, the waterproof coat can be proceeded with.

2. Drains and Pipes

- a) Cut a section of Flexicrete matting sufficient to go around the pipe and overlap by 50mm. The length of the Flexicrete matting will normally be 150mm for vertical

installation and 150mm for horizontal installation, i.e. a length of 300mm. Cut 150mm long slits 50mm apart in the length of the matting. Cut another 300mm by 300mm Flexicrete matting section and make a cross cut in the bottom to tightly fit the diameter of the pipe.



- b) After dipping the prepared Flexicrete matting in the primer mix, wrap a section of it around the pipe allowing a 50mm overlap.
- c) Pull the dipped section of Flexicrete matting (with the cross cut) over the pipe and firmly embed.
- d) When the embedded Flexicrete matting is touch dry, the waterproof coat can be proceeded with.

3. Construction Joints

If there are any construction joints Flexicrete matting dipped in the primer mix (0.5m each side of the joint [total strip width 1 meter]) must be embedded over the entire length of the joint following the methodology outlined above.

Waterproofing Coat

The same mix proportions as set out above can be used to create a water resistant layer. In this application, two coats of slurry should be applied onto the primed surface. The first coat is applied onto the wet prime coat. This is followed by a second sealing coat, at right angles to the first, once the first coat is touch dry (after 20 – 30 minutes).

The thickness of each coat should not be more than 1,5mm and the system should be allowed to set for at least two days before any further layers or covering material are applied.

In cases where water resistance is critical, or hydrostatic pressure is anticipated, the proportion of Flexicrete in the mix can be increased by up to a maximum of 100% (e.g. 16kg Flexicrete per 50kg cement). The higher the percentage of Flexicrete, the better the water resistance will be.

The above system can also be applied in conjunction with a reinforcing Flexicrete membrane. The membrane must be embedded immediately in the wet 1st application. Once it is touch dry, a second generous application can be applied onto the embedded membrane. Allow to dry and apply a final finishing coat.

An alternative method is to soak the Flexicrete membrane in a bucket of Flexicrete slurry and then to lay the soaked membrane onto the primed surface. (Allow 50mm for overlaps Once this layer is touch dry, a second generous application of Flexicrete slurry is applied over the surface. A final finishing coat is then applied once the second coat has dried.

As an alternative to the waterproofing coat, where it is deemed prudent, a Waterproof Rendering can be applied in its place and stead.

Waterproof Rendering

General purpose waterproof renderings or screeds are prepared according to the following mix proportions:

	Flexicrete	Cement	Sand
By volume	1 part	2 parts	6 parts
By mass	1kg	5kg	15kg
By mass (per 50kg cement)	10kg	50kg	150kg

Add water cautiously until desired consistency is obtained. Flexicrete has a plasticizing action that reduces the requirement for water in the mix. Mix thoroughly to obtain uniform mix.

After the prepared surface has been correctly primed and allowed to dry, apply another coat of prime and lay the rendering directly onto the wet slurry. The rendering should be applied in 2 layers of 7mm to achieve the desired thickness of 13mm.

General

- In mixes containing sand, the sand should be a washed angular type. Fine sand can be used but clay materials should be avoided.
- Mixing should be thorough. Hand mixing batch sizes up to 50 kg is acceptable.
- Machine mixing should be with positive mixing mixers rather than with tumbling action mixers.
- Flexicrete has a plasticising effect and reduces, and in some cases eliminates the need for the addition of water.
- Do not apply Flexicrete mortar onto wet surfaces. Remove surface moisture.
- Air entraining agents should not be used in the Flexicrete mix.
- Flexicrete mixes have a lower water/cement ratio than conventional mixes.
- Wash tools with water immediately after working. Stubborn residue can be removed with petroleum solvents such as paraffin and white spirits.
- Flexicrete can be stored for 6 months.
- Store and use at temperatures between 5⁰C and 35⁰C.
- When mixing with sand, first mix sand and cement. Thereafter add Flexicrete and finally cautiously add water to suit to produce a stiff but workable mix.
- Promote curing for 48 hours after laying Flexicrete mix to prevent too rapid drying.
- Where potable water is to be stored in contact with Flexicrete, ensure that the final layer has cured for 14 days and then flush before use.
- Where overlaps are indicated, allow 50mm.
- Where joints occur, ensure that they are staggered in successive layers.