Delta Membrane Systems Limited Technical Guidance Note - 018

Installation of Koster BD Wet Room Tanking System

CONSTRUCTION OF WET ROOM

There are several different ways of constructing a wet room, each of which has its pros and cons. There are however some basic principles that must be observed, these are:

- The floor can be either screeded or constructed from heavy duty wooden sheets such as plywood, but in all cases, there must be a gradual slope to fall towards an appropriate shower outlet. The supporting structure must be solid, without flexing. Any joints in the construction board must be butted together and well fitting. This can be made easier by using a pre-manufactured Shower Tray Former.
- The body of the shower outlet must be recessed or cast into the floor in such a way that the top of the flange is on a level or fractionally lower than the floor surrounding it. There can be no upwards step into the shower outlet. All pipework from the shower outlet must run downwards into the drains.
- All brick or blockwork walls must be flush pointed, and any damage repaired prior to the use of the Koster BD Wetroom Tanking System.
- Koster BD Wetroom Tanking System cannot be used directly over narrow wooden floorboards, such boards must be covered with a sheet material such as plywood. Hardboard is not suitable, as it is not rigid enough to prevent transfer of movement from the original floor.

PRIMING

Koster BD 50 Primer is used as a bonding agent on most absorbent surfaces including plasterboard, plaster, plywood, renders and screeds. The surface must be dry, solid, supportive and level as well as free from oil, grease, dust, and other separating layers. Residual adhesives and paint as well as any loose plaster or masonry must be removed.

Shake or stir Koster BD 50 Primer thoroughly before use. Apply evenly using a roller or paint brush.

The temperature during application and drying period must be between +5 $^\circ\text{C}$ and +25 $^\circ\text{C}.$

The drying time for Koster BD 50 Primer depends on the temperature of the air and the building structure, air movement, humidity and the absorbency of the substrate. With a temperature of 20°C and a relative air humidity of 50%, the drying period is approximately 2 hours. The consumption rate of Koster BD 50 Primer depends on the absorbency and nature of the substrate. Normally, the consumption rates range from 100 to 250 g/m². All tools can be cleaned with water immediately after use.



CORNER DETAILING

All internal and external corners must be detailed with Koster Superfleece prior to waterproofing the main area. For internal corners cut a 250 mm strip of Koster Superfleece, then halfway along the length make a cut from the bottom edge to the centre. Apply a thick stripe coat of Koster BD 50 into the corner that you are detailing, 100 mm onto the wall and 100 mm onto the floor for a length of 150 mm in both directions.

Fold the piece of Koster Superfleece in on itself and press it into the fresh compound with a paint brush or gloved hand; apply additional compound at the overlap.

Immediately work over the corner piece with a brush and more Koster BD 50 until the strip of Koster Superfleece is completely covered.

For external corners proceed the same way, but this time the Koster Superfleece will splay out around the corner, creating a gap at the bottom.

For this reason, a second piece of Koster Superfleece must be prepared, this time, cut from the top edge to the middle and place it diagonally over the corner, overlapping the previous piece, with a fresh layer of Koster BD 50 in between. This way the two pieces cover the entire external corner.

Special attention must be paid to the very corner point where the two cuts meet - apply a generous layer of Koster BD 50 to this area.

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PIPE PENETRATIONS

Small pipe penetrations (hot and cold water) should be sealed with a 100 mm square of Koster Superfleece cut from the supplied roll. Fold the Superfleece square in half and carefully cut a small hole in the middle (approx. half of the diameter of the pipe that needs to be sealed). Apply Koster BD 50 with a brush 100 mm out from the pipe penetration and about 10 mm onto the base of the pipe. Push the unfolded Koster Superfleece square over the pipe and bed it into the fresh compound. The hole in the fleece will stretch to size, creating a turn-up onto the pipe tail. Work over with Koster BD 50. Clean off any excess compound on the pipe-tail with a rag while still fresh.

SHOWER WASTE OUTLET

The connection between the Koster BD Wetroom Tanking System and the shower gully is made using the supplied Koster Outlet Sleeve. First remove the clamping ring from the gully. Draw a circle in the centre of the outlet sleeve using the inside of the clamping ring as a template, then cut out the circle with a pair of scissors. Apply a generous coating of Koster BD 50 onto the floor around the gully. Position the sleeve centrally over the gully and bed into the fresh compound. Overcoat the sleeve up to the edge of the gully, leaving the inner section uncoated.

DO NOT REPLACE THE CLAMPING RING AT THIS STAGE.

When Koster BD 50 is dry (minimum 4 hours cure time) carefully lift up the internal edge of the sleeve and apply Koster BD 50 with a small brush to the underside of the sleeve and the inside of the gully where the clamping ring will sit.

Then apply Koster BD 50 to the top side of the sleeve so it is now fully covered.

Replace the clamping ring while the newly applied compound is still fresh and screw down into place. The Koster outlet sleeve will stretch down into position creating a seal between the inside of the clamping ring and the body of the gully. The supplied Koster Outlet Sleeve is made for circular waste outlets, linear drainage channels can be sealed by overlapping Koster BD 50 and Koster Superfleece onto the flange. Koster Linear Sleeves (supplied separately) will be required for linear drains with a clamping plate, they are applied in the same manner as the Koster Outlet Sleeves.

MAIN WATERPROOFING APPLICATION

Once all corners, joints, pipe entries and sleeves have been installed and are dry to the touch (minimum 4 hours), the main area waterproofing can begin. Koster BD 50 must be stirred thoroughly before use. Application temperature should be between +5 °C and +25 °C. Apply with a brush or roller in two to three generous coats.

Do not "brush out" the compound too thinly but use the brush or roller to spread the material in a thick layer.

For a two-coat application each wet coat should be approx. 0.5 mm thick (500 g/m²). The first coat must be completely dry before the next coat can be applied, this normally takes a minimum of 4 hours. The material dries to a lighter shade of grey, so it is extremely easy to see where the second layer has already been applied. The main application of Koster BD 50 should completely cover all the previously applied reinforced details creating a seamless finish. All tools can be cleaned with water immediately after use.

Koster BD 50 will not fully cure for approximately two to three weeks but can be tiled over by using waterproof tile adhesive after the final layer has dried for at least 24 hours. Koster BD 50 is a water-based product, it should not be subjected to long term "standing water" flood tests unless it is fully cured.