

Step by Step Preparation & Aftercare Guide.

Before we arrive, please take the time to study this important guide to ensure that your installation can be completed on the day without any issues and to ensure there is no issues after we've left.

Bonded Screeds

BS8204:7:2003 considers the screed bonded if it is placed in direct contact with a prepared concrete or other hard wearing substrate.

Sub Floor Preparation for Bonded Screeds

- Rough up the surface of the concrete substrate to remove any laitance and prime the concrete using a SBR, epoxy or polyurethane primer and allow to dry.
- Add a second coat of primer 48 hours later. If you were unable to "rough up" the concrete and whilst the 2nd coat is still wet scatter clean kiln dried silica sand onto the surface and allow the primer to dry.
- Vacuum up any loose sand leaving a rough textured surface onto which the screed can be placed.

Please ensure your boots are clean and there is zero traffic of any kind on the primed areas to avoid contamination.

Un-bonded Screeds

BS8204:7:2003 considers the screed unbonded if it is separated from the sub floor usually by means of a 1200gauge polythene membrane and where insulation is present. The screed is also considered unbonded if it is placed directly in contact with an unprepared loose substrate. Maximum bay size is 1000m² or 8:1.

Sub Floor Preparation for un-bonded screed or if using UHF.

- Scrape off any debris or mortar splashes from the concrete sub-floor.
- Sweep the sub-floor, leaving a flat clean surface, on which to place the insulation.
- If there was no known active DPM fitted to the property - Place a minimum 1200gauge DPM over the subfloor cutting so it sits 100mm up the walls on all of the edges of the room ensuring that all joints are overlapped by minimum 100mm and taped.

Installing Insulation

- Ensure that any insulation is flat to the sub floor with no voids underneath, fill any voids found with a grit sand. Any joints in the insulation should be staggered and the boards should be tightly butted and taped together with silver duct or insulation tape.
- Placing services other than underfloor heating within the insulation should be avoided where possible and under no circumstances should gas pipes be placed within the insulation zone, these must be encapsulated in the screed itself, be factory wrapped in yellow covering and clipped or fixed every 300mm maximum.

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LIQUID FLOOR SCREED

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2nd Damp Proof Membrane

- Place 1200 gauge polythene over the top of the insulation ensuring it is pulled tight with no creases and overlap joints a minimum of 100mm & run the plastic 100mm up the walls.
- Install the edging strip around all walls, and around columns, taking care to ensure it is neatly placed into all corners. Avoid stretching the edge strip around external corners. Tack the edging strip to the walls using a staple gun if necessary. Ensure that there are no voids behind the edge strip.
- Install the under floor heating pipes, ensuring they are appropriately fixed at every 300mm along the length of the pipes & more frequently on bends.
- Fill the under floor heating pipes with water and check for any signs of leaking. Perform a pressure test to 6 bars or the maximum operating pressure for the system to ensure the pipes hold water under pressure. The pressure should be maintained whilst screed is placed.

Joints

- Install movement joints across door thresholds & between independently controlled heating zones. Also where the aspect ratio is greater than 1:8. Cut away notches on the underside of the joints to allow it to sit level over the UFH pipes.
- Either cut the joint so it sits 5mm below the finished level of the screed or create "V" notches on the top of the joint, this allows the screed to flow across the joint to keep the screed the same level either side.
- Complete a final depth check to ensure the minimum depth of cover to pipes can be maintained. This is normally 20mm.
- Vacuum out all debris from the surface of the polythene. Any material left may float once the screed is poured resulting in blemishes on the hardened surface. Inspect the whole tanking system for any tears or un-taped joints, make good, ready for screed to be poured.
- Additional joints should be considered at abrupt changes to aspect ratio, where heated and unheated screeds meet, abrupt changes in depth or in areas of high thermal gain such as conservatories.

Quality Control for either bonded or un-bonded.

Our fully trained Aire flo-screed installers will arrive on site and set up the mixer and pump, check and setup levels with multiple, evenly placed tripods once a datum level is agreed with you on site. Before commencing the main pour the screed is checked for flow and appearance to ensure quality. Once we begin batching and pumping, the screed will be laid to the pre-agreed tripod levels, the screed is then dappled in two directions to level the surface and then left to dry. The performance and finish achieved by Aire flo-screed is dependent on the conditions in which it is installed and for a good period thereafter. It is essential the following site conditions are provided during screed pour and 24 hours thereafter. The entire area where the screed is to be installed must be frost-free and not subject to temperatures of less than 5°C or more than 30°C. The surface of the screed must be protected from severe draughts and direct sunlight. The temperature of the area where screed is placed should not fall below 5°C.

Immediately after any installation

Our liquid screed can usually accept foot traffic after 48 hours. It is sometimes possible to traffic the morning after the installation. Care should be taken to avoid damaging the surface of the screed if it is not yet fully hardened. Full site traffic should be avoided for at least 7 days. Where very heavy site traffic e.g. scissor lifts and such like, is expected, it is advisable to temporarily protect these areas with plywood sheets, which should be removed immediately after use to permit drying.

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Drying for either bonded or un - bonded

Aire-flo screeds are self-curing. It is essential that the material is undisturbed for the first 24-48 hours. Rapid loss of moisture should be avoided during this period. Where windows and/or doors are not installed, a temporary provision must be made using appropriate materials. Direct sunlight in all cases must be avoided.

After 24 – 48 hours, open windows on all sides of the building in order to achieve good cross ventilation, and air changes thus accelerating the drying out process. Dehumidifiers may be used after 72 hours to assist drying if required. Avoid moisture ingress from rain or other water sources and in the event of accidental spillage ensure it is cleared up straight away.

In common with other liquid screeds the drying time for Aire-flo screeds based on 50mm depth 28 days. Underfloor heating can be commissioned after 7 days and can be used to force dry the screed reducing drying times to as little as 13 days. But all drying times are fully dependent on site conditions. Also see the sanding section below!

Commissioning the underfloor heating

After a minimum of 7 days following installation of the screed switch on the heating system using the manifold mixing valve or boiler temperature control to set the flow temperature at a maximum of 35C or the lowest available temperature. Room thermostats should be disabled. Leave at this temperature for 3 days before increasing by a maximum of 5C per day until a maximum of 55C is reached. Leave at this temperature for a minimum of 3 days before reversing the process. Switch off the heating for minimum of 48 hours before carrying out a moisture test on the screed.

Note: underfloor heating should always be commissioned and run prior to applying bonded floor coverings.

Sanding for either bonded or un - bonded

In common with all screeds, our screed **must** be lightly mechanically abraded to remove the laitance and contamination from the day to day site traffic when it's between 7 & 10 days old **and again** prior to applying any floor coverings. This abrasion not just allows the screed to dry but also promotes a key for primers and adhesives to bond to. A calcium sulphate compatible primer should be applied to the floor once the floor has completely dried to the recommended moisture levels at which point a floor covering can be applied. It is also important that any adhesive used is anhydrite/calcium sulphate compatible. Please check with your chosen flooring suppliers.

Moisture testing before laying finished floors

Avoid water ingress to completed screeds and arrange to dry out accidental ingress as soon as possible. The screed may suffer a minor loss of strength if it becomes wet however, this strength will be regained when it dries out. Moisture testing is by means of a flooring hygrometer, carbide bomb or oven dried sample. For moisture sensitive coverings the floor should be below 75% relative humidity, which equates to 0.5% moisture content by mass. For moisture permeable floor coverings the floor should be below 85% relative humidity or 1% by mass.

Should you not sand the surface at the 10 day point you will experience delays in your drying times which will delay laying the final floor coverings.

For further information or guidance, please call our technical team on 0800 061 4455 who will be happy to help!

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