



UFHT Screed Preparation & Aftercare Advice.

Building Requirements

The area to be screeded should be weather tight with a roof covering in place and all doors and windows either in place or their openings sealed. All dust and debris should be cleared from the area after the insulation is laid.

Insulation

The insulation should be tightly laid with no gaps and the joints should be staggered and there should be no movement over any high points in the sub floor. The bottom of the insulation should be grooved where necessary to allow the insulation to sit above any pipework or ducting on the sub floor.

Edge Strip/Expansion Upstand

Edge strip should be applied to any wall or other vertical surface that the screed will come into contact with, this is to allow for any future movement in the screed slab once it has dried. Underfloor Heating Technologies offer the supply and installation of edge strip as an optional extra on your screed quotation. If Underfloor Heating Technologies are not supplying and installing the edge strip it should be in place prior to Underfloor Heating Technologies' arrival to prepare for the screed pour (usually the day prior to the pour date).

Tanking Membrane

A tanking membrane of 500 gauge or similar polythene is required to cover the insulation and edge strip. The tanking membrane is required to prevent the liquid screed from leaking below the insulation and as such all joints in the polythene should overlap by a minimum of 100mm and should be thoroughly taped to provide a 100% seal. Please note that foil backed tape that is often used on rigid insulation is not suitable for use with screed, a high tack duct tape or similar should be used instead. The polythene should be laid up the walls to at least the top of the edge strip and should be pushed into the joint where the floor meets the walls to minimise any air pockets below the polythene. The polythene should also be laid up to the same level on any floor penetrations such as ducting of waste pipework. The polythene should be installed flat with no upstanding creases and it is essential that there are no unsealed holes or punctures. Underfloor Heating Technologies offer the supply and installation of a 500 gauge polythene tanking membrane as an optional extra on your screed quotation. If Underfloor Heating Technologies are not supplying and installing the tanking membrane it should be in place prior to Underfloor Heating Technologies' arrival to prepare for the screed pour (usually the day prior to the pour date).



Screed Pour

Underfloor Heating Technologies will attend site for a pre-arranged screed preparation visit usually on the day before the screed pour to check the suitability of the screed preparation and, if ordered, supply and fit the edge strip and tanking membrane. During this visit the level of the screed will be set using specialist tripod “pods” and detailed measurements will be taken to finalise the exact quantity of screed required.

During the screed pour and for the following 24 hours the screed area must be frost free, have a minimum ambient temperature of 5°C and a maximum ambient temperature of 30°C.

The screed will be delivered at a pre-arranged time and pumped into the pour area up to the level set by the tripod “pods”. Once the correct level has been attained the “pods” are removed and the screed is manually agitated with the use of dapple bars to leave a smooth even surface.

Any excess screed will be disposed of on site as agreed, usually by pumping into a builder’s bulk bag, for disposal by the customer once dried.

Screed Aftercare

Once the pour is completed the screed area should be sealed up and left unventilated until the screed has solidified, this usually takes 24 - 48 hours. Glazing should be covered to prevent direct sunlight falling on the wet screed slab and care should be taken to prevent any severe draughts in the screed area. Traditional drying procedures for cementitious screeds do not need to be followed with anhydrite liquid screeds but it is vital that rapid moisture loss in the first 24 – 48 hours should be avoided by following the above steps.

Once this initial period has passed the screed area should be opened up and ventilated as much as is possible to encourage drying of the screed slab.

After the first 7 days you will be able to use force drying techniques to accelerate the screed drying time. A dehumidifier can be used to assist the drying of the screed slab, on larger projects more than one dehumidifier may be required. If using a dehumidifier the screed area should be sealed to prevent fresh humid air from being pulled in from outside of the building.

If underfloor heating has been installed you will be able to start applying heat to the screed slab. A low flow temperature of 25°C should be used initially for three days then the flow temperature should be raised by 5°C a day up to a maximum of 50°C followed by a period of at least four days at 50°C flow temperature. Ventilate the screed area well or use a dehumidifier to prevent the air humidity from rising.



Preferably the screeded area will be left clear at least until sanding if not until the slab is fully dry. If this is not possible anything that has to be stored on top of the screed should be raised up to allow ventilation to the screed surface.

Laitance and Sanding

As the surface water evaporates from the screed slab a fine layer of laitance forms on top of the screed. This should be removed within 4 – 14 days of the pour, the exact timing depends on ambient weather conditions and which screed additives, if any, have been used. During the drying process fine lines can appear in the laitance which can give the impression of the screed cracking. This is completely normal and will be removed during the sanding process. Sanding also accelerates the drying time of the screed slab. Underfloor Heating Technologies offer sanding of laitance as an optional extra on your screed quotation.

Drying

The guide for drying time is 1mm of screed depth per day for the first 40mm of depth and 0.5mm per day for every mm after that. So a 50mm deep screed would be expected to have a 60 day drying time, though this figure is very dependent on the ambient conditions. The drying time can be accelerated either by the methods described above and/or the use of the Fast Drying additive, which is given as an optional extra on your screed quotation.

The moisture level of the screed should be measured with a Hair Hydrometer or similar device to determine when it is suitable to lay the floor finish. This is usually carried out by the floor fitter who will also be able to inform you of the required moisture content for their product.

Priming

Once the screed slab has completely dried a calcium sulphate compatible primer should be applied to the slab, it is also important to ensure that an adhesive used is calcium sulphate / anhydrite compatible.