



SCREEDFLO SCREED PREPARATION

The building should be weather tight prior to commencement. The roof should be covered and all external doors and windows in place. Alternatively all openings are to be made weather proof with polythene or another suitable material.

Clean the floor and remove all dust and debris from the surface so it is free from contamination.

Insulation

Ensure that all high/low points are removed from the sub-base and that insulation boards are laid flat. Where there are service pipes running across the floor, the insulation should be fitted around the pipes, so that the boards are sitting flat.

Insulation boards should be tightly butt jointed with staggered joints.

Perimeter isolation upstands should be provided to all abutments. We recommend the use of either 20mm extruded polystyrene board insulation for cold bridging or a proprietary 8mm expansion strip to the full depth of the screed.

Membrane

All liquid screeds require a 500 gauge/125 micron (MU) grade polythene separating membrane. TPS is not suitable. Ensure that perimeter isolation details are installed as above.

Note Screedflo screed reacts with aluminium.

Lay polythene membrane ensuring that it is free from punctures and creases. Lap joints a minimum of 100mm and where necessary continue the polythene up the face of all abutments to finish slightly higher than the depth of the screed.

In order to avoid leakages thoroughly tape all joints and abutments, using waterproof gaffa tape (but not aluminium backed tape), to ensure that the area is 100% watertight. Take care to remove air pockets and voids beneath the separating membrane particularly at abutments and corner details.

Exposed edges such as door openings or level changes should be provided with temporary formwork.

Please note that when installing Screedflo liquid screed, it is imperative that the preparation is carried out to the highest standard.

Underfloor heating

When installing underfloor heating, this must be laid on top of the membrane and cables are to be securely fixed down using proprietary fixings, at least every 300mm.

Water systems should be filled prior to the application of Screedflo to reduce the risk of pipes floating when the screed is poured.

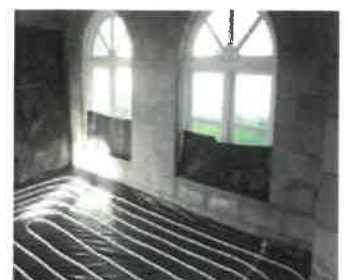
When setting out the floor areas consideration must be given to the minimum recommended thicknesses for Screedflo as listed below.

- On slip-sheet/polythene laid direct to substrate 30mm
- Floating on insulation (Domestic) 35mm
- Floating on insulation (Commercial) 40mm
- Cover to conduits/underfloor heating pipes 25mm

For underfloor heating systems we recommend an optimum overall thickness of 50mm standard Screedflo.

Please make an allowance for tolerances and any isolated high spots in the substrate. These will dictate the minimum thickness of the screed and therefore impact upon the overall depth and material usage. **Carry out a level survey on the floor to check the depth of screed required.**

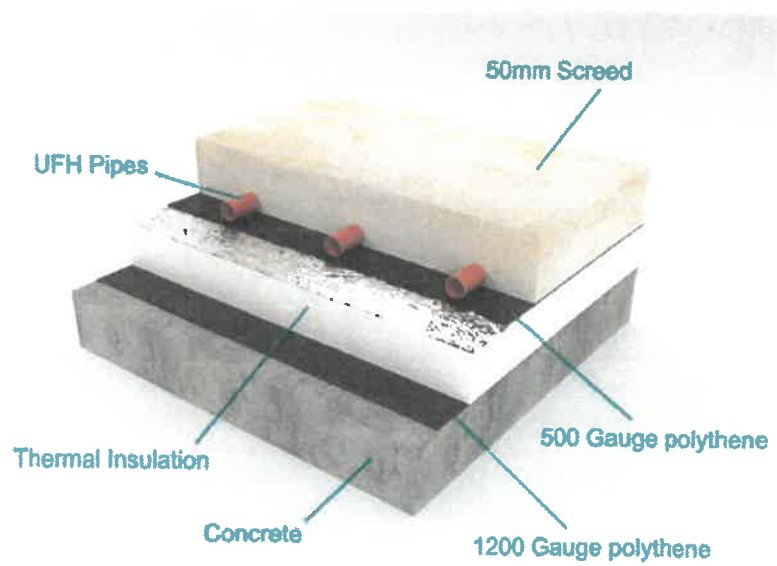
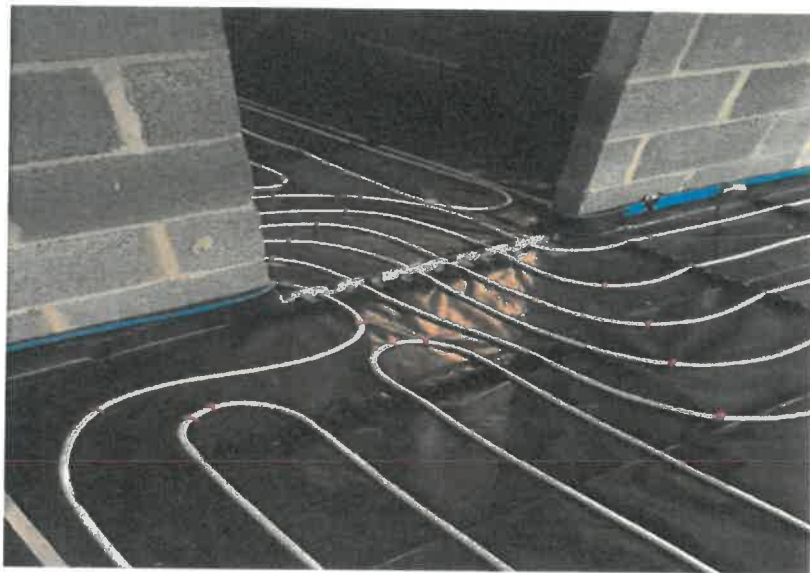
Please telephone 01621 874781 if you have any questions or require any further advice.



For all enquiries please contact us:

Telephone: 01621 874781

Email: info@screedflo.co.uk



Additional information

Edge strips should be of an extruded polyethylene type with a laminated polythene skirt attached. The shape of the room and the aesthetic effect on the subsequent floor coverings should be taken into account when designing joint configurations and bay sizes. Additional joints must be placed between independently controlled heating circuits, between heated and unheated screed areas and in areas of high thermal gain.

Bay joints should be formed using rigid joint formers where possible, which can be placed during the preparation phase and will remain in place during operation. Ideally the joint former should be 5mm lower than the finished Gypsol screed depth to allow a smooth transition in height between bays. Where joints are saw cut, beware of any embedded pipes or cables within the screed. See our additional data sheet entitled "Forming Joints" for further information on creating suitable joints within screeds.

Consideration should be given to the shape and configuration of the area when placing movement joints, e.g. where rooms are L shaped leading to abrupt changes in aspect ratio, which may cause restraint.

Minimum depth ⁽¹⁾

Floating	Domestic	35 mm
	Commercial	40 mm
Unbonded		30 mm
Bonded		25 mm
Underfloor heating		25 mm cover to pipes

In all cases the nominal depth should be as close to the minimum depth as possible to avoid excessive drying times. Suitable insulation can be used as a void filler where deeper floor sections are required. (1) Gypsol HTC, TS-15 and TS-20 may be applied to thinner depths. See relevant datasheet for further details.

Maximum bay sizes

Underfloor heated	All cases	300 m ²	Aspect ratio 6:1
Unheated	Floating	1 000 m ²	Aspect ratio 8:1
	Unbonded	1 000 m ²	Aspect ratio 8:1
	Bonded	1 000 m ²	Aspect ratio 8:1

As with all screeds, joints should reflect structural joints in the substrate. Care should be taken to ensure that joints within the screed are suitably placed to take account of joint requirements in finished floor coverings.

Bay length

Floating	Domestic	40 m
	Commercial	40 m
Unbonded		40 m
Bonded		40 m
Underfloor heating		20 m

Consideration should be given to take account of maximum bay length, maximum bay size and aspect ratio. For example a corridor 2m wide will require a joint frequency of 1 joint per 16m if unheated where as a room of 20m x 25m is likely to need no joints.

Edge detailing

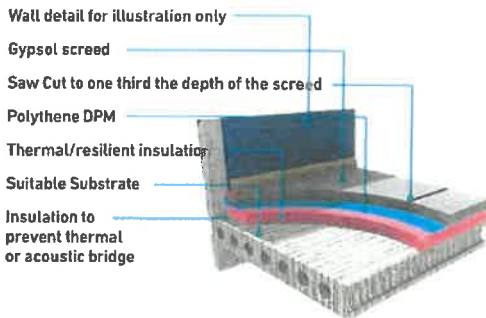
In common with all screeds, Gypsol screed should be isolated at all edges, abutments and columns. This is to ensure adequate allowance is given for the screed to undergo the maximum positive movement under the application or removal of thermal loadings.

Edge strip width

Heated screed	8 mm (typically 10 mm)
Unheated screed	5 mm

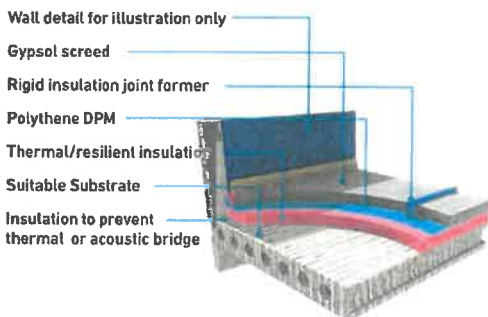
Linear Co-Efficient of Thermal Expansion (typical) = 12x10⁻⁶ m/mK





OPTION 1 : SAW CUT JOINTS

This option is likely to be unsuitable for use for screeds containing underfloor heating. However where appropriate the joint should be dry saw cut within the first 72 hours of the screed having been laid in order to minimise the risk of early age movement cracking. Saw cuts should be made at suitable positions using a 5mm disk cutter or other suitable equipment. Saw cuts should be made to a depth of one third of the depth of the screed, taking care to avoid damage to any under screed damp proof membranes or acoustic membranes. Where there is a risk of damage to conduits within the screed or any other critical design elements as a result of saw cuts then we suggest option 2 be adopted in preference. When dry saw cutting, appropriate PPE should be worn to prevent dust inhalation during the cutting phase



OPTION 2 : PREFORMED JOINTS

This option is considered suitable for use with all screeds. Preformed rigid insulation joint formers should be placed as part of the preparation phase at pre-specified locations ensuring that minimum bay sizes and maximum bay lengths are observed. The joint formers should ideally be cut to a depth of 5mm below the finished level of the screed to reduce the risk of lipping and meniscus. However, provided care is taken to measure the finished depth of the screed either side of the joint, standard depths can be used. Where underfloor heating pipes or other conduits are present and transfer across the joint, the rigid strip should be cut over the conduits using a suitable cutting tool. Any resultant void should be filled with a flexible filler prior to screeding, to ensure the screed is fully isolated across the joint. The conduits should be sleeved to allow pipe movement independently of the screed.

Additional notes

1. LKAB Minerals cannot guarantee any installation against cracking. However it is rare for Gypsol screeds to fracture due to movement cracking when correctly designed and installed
2. For information on where to source preformed rigid joint formers contact our technical and specification team on 0800 6226023
3. Joints should generally be between 5mm and 12mm in width. If placed to take account of expansion, the joints should extend through the full depth of the Gypsol screed
4. All joints in the screed should reflect through any subsequent bonded floor covering
5. Joint positions should be specified prior to the installation of the Gypsol screed and full consultation between all parties including the main contractor, underfloor heating installer, finished flooring installer and the Gypsol screed installer should take place to determine appropriate
6. Movement joints should be placed in accordance with the designer's requirements or in line with the requirements of BS8204:7:2003. Particular attention should be paid to joints in heated screeds due to the elevated level of thermal movement during heat cycling within the floor. Movement joints should be included across door thresholds, between independently controlled heating zones and where heated and unheated screeds meet. Additional joints may be needed which fall outside of the requirements of BS8204:7:2003. These should be discussed at design stage. Such joints may be installed, with due care and attention, after the screed has fully hardened, by the finished flooring contractor, by means of saw cuts. These should be made to a depth that avoids potential damage to any pipes or conduits or cables running within the screed.

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