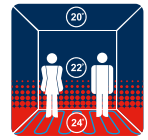


Liquid Screed



DESCRIPTION

GSUFH Liquid Screed is a blend of binder and selected aggregates mixed with clean potable water to produce a flowing pumpable screed.

USES

GSUFH Liquid Screed is designed to provide a smooth level surface in both commercial and domestic buildings prior to the application of floor finishes and is particularly suitable to application as a floating screed and for use with underfloor heating systems.

KEY FEATURES

- Increased productivity - 2000m²/day can be easily achieved. (average 500-1000 m²/day).
- Can be walked on in 24-48 hours.
- Does not require curing.
- Extremely low shrinkage - does not curl and minimises the risk of cracking.
- Suitable for floating floor construction.
- Avoids the need for reinforcement.
- Ideal for use with underfloor heating systems enabling rapid commissioning of the underfloor heating in accordance with BS1264:2001-Part 4 clause 4.4.
- Significantly reduced thickness when compared to traditional sand - cement screed.
- Weight saving as a result of thinner section.
- Large bay sizes of up to 30-40 linear meters depending on application.
- Dries at a rate of 1mm per day up to a screed depth of 40mm however this can be affected by adverse site conditions.
- Can be force dried as early as 7 days after application.
- Easily achieves SR2 finish as described in BS8204.
- Protein free - cannot harbour harmful bacteria.
- Non combustible (tested to BS476 Part 4).
- Minimal Thermal expansion (0.012mm/mK).
- Excellent thermal conductivity (2.2W/mK).

TECHNICAL DATA

Appearance/Colour:	Off-white fluid mortar
Water demand:	13-15% b.w.
pH:	>10
Wet Density:	2200kg/m ³
Dry Density:	2000kg/m ³
Composite Screed Properties (Typical)	
Nominal 750kg/m ³ Binder + Standard Sand to clause 5.1 of EN196-1: 1994 and 13.5% water.	
Flow:	DIN 1060 Flow Ring 260mm
Setting Time:	EN 196-3:1994 Vicat
Initial Set	> 300 Mins
Final Set	< 660 Mins
Compressive Strength:	
3 days	> 15N/mm ²
28 days	> 30N/mm ²
Flexural Strength:	
3 days	> 3 N/mm ²
28 days	> 8 N/mm ²

MINIMUM APPLICATION THICKNESS

Bonded:	25mm
In Contact with Substrate:	30mm
Unbonded:	30mm
Floating Commercial:	40mm
Floating Domestic:	35mm
Underfloor Heating:	30mm minimum cover to pipes

DELIVERY

Liquid Screed is supplied in bulk via a concrete plant in 5m³ mixer trucks.

HEALTH & SAFETY

Some of the components of this product may be hazardous during mixing and application.

Post Installation Guidelines

GSUFH Liquid Screed is a flowing pumpable calcium sulphate based screed designed to provide a smooth level surface in both commercial and domestic applications prior to the application of floor finishes.

Suitable for application to all types of sub floor GSUFH Liquid Screed is ideal for application as a floating floor on insulation, over underfloor heating (both electric and warm water systems), and cooling systems on thermal insulation and on resilient layers in acoustic applications, for large areas to reinstate the floor level.

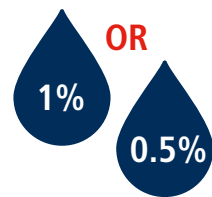
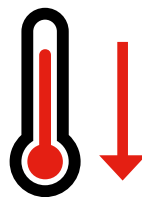
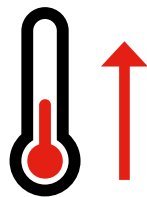


Do not cover with polythene.

Storage of materials on the screed surface, accidental exposure to water, humid or cold environments will all delay drying.

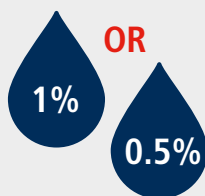
Following installation the environment must remain sealed for 2 days. The screed should be protected from direct sunlight and frost during this time.

After this period good drying conditions should be maintained, increase ventilation, and if possible increase room temperature to minimise drying time.



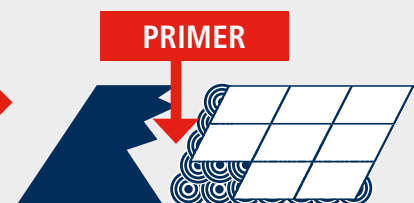
After 7 days the screed can be force dried. When installed over underfloor heating and cooling systems the screed must be heated prior to application of floor finishes. This can commence as early as 7 days after installation, commissioning of underfloor heating should be carried out in accordance with BS1264:2001 Part 4 Clause 4.4 and in line with the manufacturers recommendations, heating should be gradual, in 3—5°C increments and at no time should the water or cable temperature exceed 50°C.

The system should be switched off for a minimum of 48 hours (2 days) prior to determination of the moisture content and installation of floor finishes.



For permeable floor coverings
Moisture content < 1%

For impermeable floor coverings
Moisture content < 0.5%
< 75% RH



Prior to installation of floor coverings the moisture content of the screed should be determined using the hair hygrometer in accordance with BS8203.

The Contract Flooring Association (CFA) and the Tile Association have recommendations relating to installation of floor coverings on calcium sulphate screeds. These bodies should be consulted for further information.

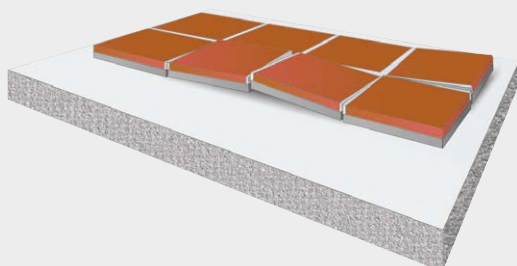
The surface of the screed should be free from dust, skin or other contaminants and should be sealed with an appropriate primer prior to the application of subsequent adhesives or levelling compounds (consult the manufacturer for suitable products and recommendations for installation). Both calcium sulphate and cement based products are suitable, however in the latter case the liquid screed should be dry and the manufacturers recommended primer used prior to application.

Tiling onto anhydrite screeds

Although they cannot be used externally or in damp or wet conditions, anhydrite (calcium sulphate) screeds have become quite common as they offer benefits over sand/cement screeds. They are relatively easy to lay, cheap, fast-setting, pumpable, self-levelling and offer minimal shrinkage. They are also suitable for use with underfloor heating as long as pipes/elements are covered by a minimum of 25 mm.

However, the tiler must be aware of the potential problems listed below.

1 These screeds have a gypsum content



When a cement-based adhesive is applied directly onto the floor, cement in the tile adhesive reacts with the gypsum in the screed resulting in a mineral called ettringite being formed at the interface.

The associated structural change is sufficient to cause a complete debond of the cementitious adhesive away from the screed base.

2 Anhydrite has a weak surface layer



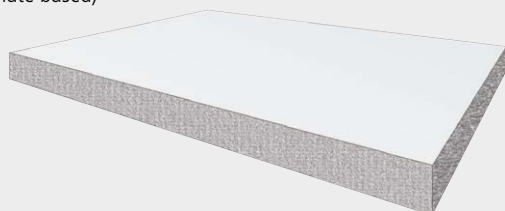
As anhydrite cures, a weak layer of laitance is formed on the surface.

This layer is too weak to tile onto and also slows the drying time of the screed.

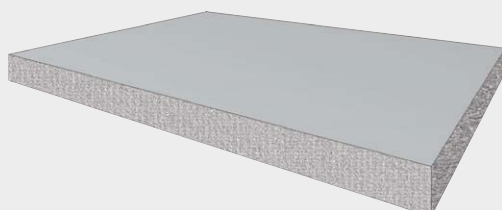
3 Anhydrite screeds may be difficult to identify

Anhydrite Screed

(calcium sulphate based)



Traditional cement and sand screed



Anhydrite screeds are made from inert fillers such as sand, with a binder system based on calcium sulphate. Consequently they can look very similar to a sand/cement screed.

Anhydrite will tend to appear lighter, sometimes almost white, but in practice it is difficult to identify an existing anhydrite screed from a traditional one.