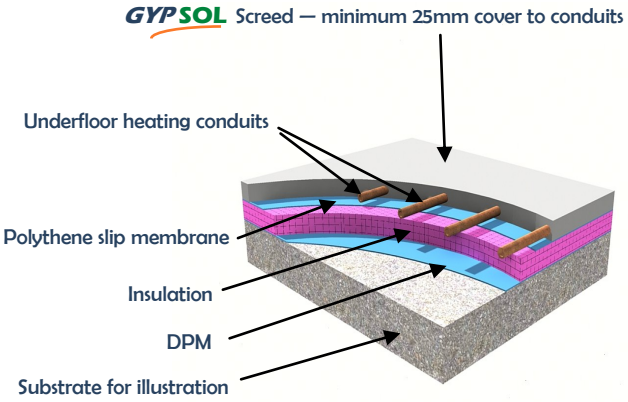
Underfloor Heating

GYPSOL

GYPSOL screed is a high quality free flowing, self compacting anhydrite floor screed which offers huge benefits to all aspects of a construction project including to screed installers, builders, underfloor heating designers, main contractors and clients alike. GYPSOL screed is a perfect complement to any underfloor heating system whether warm water or GYPSOL electric. screed has a high thermal conductivity and a high thermal capacity which means that the response time from any system is excellent. Additionally, GYPSOL screed has great thermal performance meaning that the efficiency of a heat source is improved. As the screed is installed to a much thinner depth than traditional screed more sub screed insulation can be used offering the ultimate levels of comfort and controllability to your underfloor heating system whilst minimising environmental impact and cost.

Typical Schematic



Design Data

Maximum design temperature should be no more than 55°C

Minimum EPS100 Polystyrene insulation should be used

Pipe spacing to be in accordance with the designers requirements

Pipes should be secured using clips at minimum 0.5m intervals

Movement control joints should be placed at spacing no greater than 20m and bay sizes should have an aspect ratio no more than 6:1 and a size no greater than 300m^2. No reinforcement is required

Movement joints should be placed across door thresholds and between independently controlled heating zones and between heated and unheated areas of screed

Additional joints should be considered in areas of high thermal gain e.g. large conservatories or glass atria

Installation Data

The Building envelope should be watertight prior to installation

Underfloor heating pipes/cables should be properly secured to avoid flotation during installation of the GYPSOL flowing screed

An operational Damp Proof Membrane should be placed under any insulation and a secondary slip membrane underneath the heating conduits

Warm Water Pipes should be pressurised with water in accordance with BS-EN 1264 : 2001 : 4

Minimum cover to the tops of the pipes/cables should be 25mm

Additional Performance Data

Can increase the coefficient of performance of an underfloor heating system

Self compacts and fully encapsulates heating conduits eliminating voids and improving thermal transfer

Offers rapid and controllable heating system optimising efficiency, response and reducing running costs

Reduced screed depth allows for thicker insulation

Assists in meeting environmental accreditation for your project

Post Installation

If required any surface skin should be removed prior to the heating system being commissioned

The underfloor heating should be commissioned and run in accordance with the following:

Once the screed is at least 7 days old

1. Switch on the heating system to run at a flow temperature of 25°C and leave for three days
2. Increase the flow temperature in 5°C increments per day up to a maximum of 55°C. Leave at this temperature for a minimum of 3 days (typically 7 days if force drying)
3. Reduce the flow temperature by 5°C per day down to 25°C before switching off and allowing to cool (typically for 48hours) prior to moisture testing

Test the screed for residual moisture using an approved test method

Once dry protect the screed from moisture ingress prior to applying suitable floor coverings

Bonded floor coverings should be applied using a suitably flexible and thermally stable adhesive in accordance with the manufacturers instructions

See also our "Post Installation" data sheet for additional information

Call 01928 574574 E-mail ff@francisflower.co.uk Web www.gypsol.co.uk

A Division of FRANCIS FLOWER Making The Most Of Mineral Resources

Issue 3 : 10 February 2013