Ecoscreed Thermal Glass Flowing Screed

Ecoscreed Thermal is our patented high performance flowing screed, which offers all the benefits of our standard flowing screed but is made using crushed recycled glass instead of sand.

Our binder is made from de-sulphurised Gypsum which is also a recycled material, making the most "eco-friendly" energy saving flowing screed on the market today.

When used in conjunction with under floor heating, the thermodynamic effect of the glass reduces the amount of energy required to heat up the floor by up to 30%, therefore lowering overall running costs.

We batch mix this product on site to BS EN13813, the European Standard for flowing screeds. We continually check the quality of the mix by carrying out flow tests.

Ecoscreed Thermal is pumped into the building to the undersides of our level indicators which have been previously set by laser. Ecoscreed Thermal is self-compacting and self-smoothing and provides a highly accurate surface finish. Coupled with the fact that it has extremely low shrinkage at 0.02% and does not crack or curl, our standard product also does not require reinforcement, due to its self-compacting nature.

Our product can be laid at thinner depths than conventional screeds. Up to 300m^2 of screed can be laid per day at a depth of 50mm, thereby making it highly competitive in overall time and cost savings compared with conventional sand and cement screeds. It should be installed either as an un-bonded screed or as a floating system in both new build and refurbishment projects. Ecoscreed Thermal is ideal for use where under floor heating is being installed. The fluid nature of the flowing screed allows full contact with and encapsulation of the heating pipes and floor elements. Ecoscreed Thermal is suitable for all types of floor covering but is not designed to be used as the final floor finish.

Applications: (Ambient temperature to be a minimum of 5 degrees centigrade).

Un-bonded:

- Minimum thickness: 30 mm. Fix 5mm to 10 mm border edging strip to all walls.
- Use lapped single sheet polythene not less than 500 gauge.
- Use unfolded polythene on rolls (folds act as crack inducers).
- Tape all overlapped polythene edges including at border edge.

Floating:

- Minimum thickness of 40 mm.
- Polythene to be placed on top of insulation.
- Insulation to be laid in accordance with the manufacturers recommendations.

Under floor heating system.

- Heating pipes or cables must be securely fixed down to prevent them from moving or lifting.
- Minimum screed thickness over the top of UF Heating pipes 30 mm.
- Where under floor heating is incorporated within a screed it should be commissioned and put through a complete heating cycle before the installation of the final floor finish.

Thin section coverings: If there is a requirement for direct fixing of thin section final finishes, such as vinyl, linoleum, etc. then the floor should be lightly sanded after 24 hours to remove any surface imperfections.

Need for joints:

- Under-floor Heating: Suitable joints to be made.
- Un-bonded: Joints are needed when the length to width ratio is less than 6:1.

Compressive strength: > 10 N/mm2 at 1 day; > 20 N/mm2 at 28 days.

Flexural strength: 3 N/mm2 at 1 day; 5 N/mm2 at 28 days.

Yield: 1.85 kg/mm/m2

Reinforcement: No requirement for reinforcement.

Ecoscreed Thermal conforms to BS EN 13813 the European Standard for Flowing Screeds.

Drying Times
Under ideal conditions (a warm, well ventilated room) the screed dries at a rate of 1mm/day up to a maximum thickness of 40mm and then at a rate of ½ mm per day for thicknesses above this: e.g. 50mm thickness = 40 + 20 days = 60 days. Drying times can be improved by the provision of good ventilation, open windows and doors in good weather, the use of closed system dehumidifiers (after 7 days) and by forced drying of the screed using under floor heating. (Please see Force Drying information below).

In all cases prior to the installation of your chosen floor finish it is imperative that the moisture content of the screed be checked to ensure that it is below that required by the manufacturer or supplier of your chosen floor covering.

Force Drying
Forced drying of screed can be accomplished by commissioning under floor heating systems in accordance with BS 1264: 2001 Part 4 Clause 4.4 as early as 7 days after the screed has been placed. Raise system water temperature in 4 – 5°C increments from ambient to 20–25°C, maintain for a minimum of 3 days and then gradually increase the temperature again in 4 – 5°C increments to maximum operating temperature which should be maintained for a further 4 days (water temperature must not exceed 50°C) prior to returning to ambient temperature in readiness to receive floor finishes.

NB Please note it may be necessary to commission the UFH system for greater than the 7 day commissioning period to enhance the drying. The time that is required for force drying is directly proportional to the age and thickness of the screed at the time of commissioning.

In all cases it is important to remember that adequate ventilation is required to maintain good drying conditions.

Once proven to be dry it is important that the surface of the screed be protected from accidental spillages and leaking fixings. Should these occur then the screed will require further drying to attain the required moisture content and in the worst case of full saturation, then the drying times will be as with freshly placed screed leading to possible delays in the construction schedule.

Benefits for the Client, the Architect and the Contractor.

- Completely made from recycled material.
- Energy saving.
- Fully pumpable system saves time.
- Maximum strength of up to 30N/mm.
- Reduced contract costs through time saved.
- No curling or shrinkage cracking.
- Rapid occupancy of buildings.
- Self compacting so ideal for under floor heating systems.
- No need for reinforcement.
- Screed laid with minimum joints.
- Mixed fresh on site.
- Metered quantity, no waste, you get what you pay for.

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