



Ecoscreed

THE **FLOWING** SCREED SPECIALISTS

Ecoscreed Thermal

Performance of Glass Flowing Screeds

Ecoscreed provides high performance flowing floor screeds that incorporate 100% replacement of natural sands by recycled vitrified or amorphous glass. The company can offer a total "green" specification for any flooring contract with the most "eco-friendly" energy saving flowing screeds on the market today.

The benefits of using our flowing screed over a traditional sand and cement screed are numerous when used in conjunction with under floor heating. The material that the under floor heating pipework or electric cable is in is a vital component in the heating system. The fluid nature of our flowing screed allows full contact with and encapsulation of the heating pipes or electric cables, this transfers heat up to 100% more efficiently than traditional screed. 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 for the entire life of the building. Our product is equally suited to schools, offices and care homes and use within this type of building could potentially save tens of thousands of pounds annually.

The following chart shows the average heat capacity and thermal conductivity of different types of floor screed. These are the findings of a University Study.

SCREED TYPE	AVERAGE HEAT CAPACITY J/g C (Q2000 method 0 – 20°C Range)	THERMAL CONDUCTIVITY W/MK (QTM-500 Method Room Temperature 18°C)
Ecoscreed Thermal (1.85kg/mm/m ²) (A1)	0.9037	0.8063
Sand & Cement (2.2kg/mm/m ²) (A3)	0.9914	2.2461
Anhydrite & Sand (A4)	0.7642	2.0710
Amount of heat energy (q) to heat 1m ² from 0°C - 20°C	Ecoscreed Thermal (q) = 1671KJ (50mm thickness)	Sand & Cement (q) = 2835KJ (65mm thickness)

The results of the above study show that based upon the heat capacity and thermal conductivity of Ecoscreed Thermal, when used in association with any under floor heating system will result in considerable ongoing energy savings. The results demonstrate that a 50mm thickness of Ecoscreed

Thermal floor requires 1163 KJ less energy per m² to heat up to 20°C than a Sand & Cement screed at 65mm thickness. In addition the Ecoscreed Thermal cools down 2.78 times slower than a Sand & Cement floor due to it having a lower thermal conductivity (i.e. 0.8063 W/MK compared to Sand & Cement 2.2461 W/MK.)

Additional benefits:-

- Extremely low shrinkage – 0.02%.
- Does not crack or curl.
- Can be force dried after only 7 days.
- Self-levelling, easily achieves SR2 finish in accordance with BS8204.
- Complies with BSEN13813, the European Standard for Flowing Screeds.
- Precisely levelled by laser.
- Suitable for all floor finishes.
- Fast Application up to 600 m² per day.
- Does not require reinforcement.
- Foot traffic within 24 hours.
- Protein free and will not harbour bacteria.
- More energy efficient.
- Application thicknesses from 25mm – over 100mm.
- Can be pumped anywhere from basement to loft.