TECHNICAL INFORMATION SHEET
Tiling No.6 - Gypsum Screed

GENERAL
Gypsum based screeds are based on a binder of calcium sulphate rather than cement. Generally they are pump applied ‘Flowing Screeds’ and there has been a growth in the popularity of their use when installing underfloor heating systems. The screeds can be based on Anhydrite or alpha-Hemihydrate forms of gypsum. While gypsum based screeds are suitable for tiling onto, there are a few extra critical points in their preparation.

For full details please refer to the Tile Association’s guidance document “Tiling to Calcium Sulfate based Screeds”.

PREPARATION
Moisture Content – The screed should be dry. Unlike cement based materials which can remain strong even when wet, gypsum based materials gain strength by a process of crystallization and so must be fully dry before covering. Moisture content should be checked with a carbide bomb moisture meter and reading of less than 0.5% moisture indicates the screed is dry (Hair Hygrometers are not suitable and electronic meters are only indicative).

Surface Laitance – Many gypsum based screeds suffer from a weak surface layer. This must be mechanically removed before proceeding, e.g. by grinding. Ideally this preparation is carried out about 1 week after laying the screed.

Priming – Due to the risk of an adverse chemical reaction between the sulphate in the screed and cementitious materials, it is imperative that gypsum screeds are suitably primed/sealed before over-coating with cement based materials e.g. tile adhesives. This is achieved as follows: first apply one coat Larsen Acrylic Primer diluted 1:1 with water and allowed to dry; second coat Larsen Acrylic Primer applied neat; apply tile adhesive when second coat has dried tacky.

Note – If the screed is heated, please also follow our recommendations for tiling onto heated screeds. Gypsum based screeds are not suitable for use externally or in areas of permanent dampness.

FIXING METHOD & MATERIALS
There are no specific requirements for the choice of adhesive or grout – this choice is based on normal factors: tile type; if the screed is heated; if a fast setting adhesive is required; etc.
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MOVEMENT JOINTS
Proprietary movement joints should be used. Movement joints should be provided in accordance with BS 5385 Part 1:20 or BS 5385 Part 2:20 and their location should be decided at design stage. Generally, gypsum based screeds contain fewer movement joints than cement based screeds and often they may not suit the laying out of tiling joints. It is recommended to consult with the screed manufacturer and contractor before the screed is placed.