

# Tiling to Gypsum Screeds

(Anhydrite, Supaflo, Givlon)

**Gypsum Screeds** are predominantly used because they can be produced to a pumpable, flowing consistency.

It is often stated that gypsum screeds can be used because they allow fast track construction. This is true in that a greater area can be laid in a shorter time. However, gypsum based screeds do not dry out at a faster rate than traditional screeds. A rule of thumb for drying time is 1 mm per day for the first 50 mm, with extended time being required for greater thicknesses.

For more information on gypsum screeds, contact should be made with **RMC Readymix products** who produce a gypsum based screed under the name **Supaflo** on 0800 667827.

## Preparation

The most important consideration for covering is that the material must be dry. 'Dry' is identified as having a moisture content of less than 1% if a permeable covering is to be applied, i.e. most carpets, and less than ½% for all other coverings. When applying tiles, therefore, a moisture content of less than ½% is always required. If the screed is permitted to remain or become wet an expansive reaction can occur which will result in a failure of the floor.

Prior to covering a gypsum based screed a primer / bonding agent should always be applied to the surface. Owing to the dry nature of the material, un-primed material will suck moisture from any covering adhesive and hence reduce its efficiency. **Biscem** produce a number of primers suitable for use with gypsum based screed, **Tecflor Vapourstop** - styrene butadiene latex based liquid, **Bis-Watertite** - Waterproofing and tanking kits again the liquid supplied is styrene butadiene latex based & **Tecflor LFP5** - an acrylic based ready to use primer.

## Application of Tile Adhesive

### Direct Application

When applying tiles directly onto gypsum based screed it is necessary to prime the screed well to prevent direct contact between the fresh cementitious adhesive and the dry gypsum screed. Any of the primer mentioned above as they have sufficiently low permeability when applied correctly to prevent moisture transfer between the two material whilst the adhesive dries out

If the tiling is likely to become wet and the adhesive be allowed to retain moisture a damp proof membrane such as **Tecflor SDPM** should be used between the screed and the adhesive. It should be remembered however that gypsum screeds are not recommended for use in wet areas.

Once the screed has been primed or sealed, tiling application can continue as normal using thin or thick bed method, and as with all applications ensuring a solid bed of adhesive is obtained.

Gypsum screeds, being flowing are ideal for used around under floor heating pipes. Where such a system has been used the tiling can continue as above as long as the normal precautions are followed, i.e.: switch off the heating 48 hours to tiling, do not switch back on until 48 hours after tiling and then increase the temperature at no more than 5°C per 24 hours.

### Indirect application over uneven surface

Many screeds, both gypsum based and traditional, are prone to be trafficked too early and hence require some remedial levelling prior to the application of the final covering.

Once the gypsum screed has dried out to satisfactory levels, the surface can be levelled using a self-levelling compound such as **Tecflor LF25 Latex Screed**. As this is a cement based material it is necessary to prime the screed before application using either **Tecflor Vapourstop**, **Bis-Watertite** or **Tecflor LFP5** primer. After correct application of the selected primer to the gypsum screed **LF25** can be applied and tiling continued as

above and in accordance with normal practices for covering traditional screeds or concretes.

It may be that the gypsum screed has been leveled using a gypsum based self-levelling compound. An acrylic primer should have been applied between the two materials to prevent suction of the moisture into the lower system. With gypsum self-levelers it is important, as with gypsum screeds, to ensure the material is dry before applying the adhesive. Once the screeds are dry **Tecflor Vapourstop**, **Bis-Watertite**, or **Tecflor LFP5** primer should be applied to the surface and tiling undertaken following normal good practices. Again, the system is not designed to be used in wet areas. If moisture is likely to be frequently applied to the tiling surface, or the adhesive likely to remain wet, consideration should be given to the use of a damp proof membrane between the gypsum self-levelling compound and the cementitious adhesive or a tanking system such as **Bis-Watertite**.

## Adhesives

Once it has been assured that a suitably impermeable primer has been applied to the gypsum screed polymer modified adhesives such as **Biscem Vitri-Flex**, **Vitri-Rapid** or **Bis-Xtra** should be used in all areas except when using light tone grouts or natural stone tiles where a White should be used.

## Grouting

Any grout may be used to suit the situation. Drying will vary according to the site and ambient conditions. Grouting may commence once the adhesive bed has firmed up.

When using porcelain or vitrified tiles **Biscem Vitri-Grouts** should be used as this will enhance the bond strength at the tile/grout interface.