

## Installing Ceramic Tiles or Natural Stones over Gypsum Based Product and Substrates

**Even if those substrates are not recognized by A.N.S.I. regulations? (Profix does not recommend those substrates, especially in area exposed to any level of moisture)**

### Why gypsum and all his derivates are not suitable substrate?

First, Gypsum is highly soluble to water, even when exposed to low levels of moisture 20% to 50% of his strength can be lost. But the main reason is that when put in contact with cement mixtures a chemical reaction between the calcites contained in the gypsum and the cement particles occurs, resulting in ettringite. Ettringite is a chemical compound that grows into a crystalline structure with a hexagonal aspect that occupies more volume than the original reactants. This chemical reaction is driven and amplified by moisture and humidity. It can be easily comparable to rust.

Unseen doesn't mean unreacting!

### Can natural stone and ceramic tiles be installed over gypsum-based materials using PROFIX products?

If you follow the quick rules and guidelines above; the answer is yes! (dry conditions only).

To install over gypsum-based floor levellers and lightweight underlayments in dry conditions, substrates must:

- Have been installed in strict accordance with manufacturer's instructions;
- Be fully cured, contain less than 5% of moisture, ideally around 1%;
- Be well-bonded, stable, free of existing cracks and stable;
- Be clean, dry and free of any substance that can reduce adhesion;
- Be thoroughly primed with *Px-Primer*;
- It is optional but strongly recommended to use a waterproofing and crack suppression system such as *Imper* ;

PROFIX recommends the use of: *Prolastic 6500/8500* (grey, white and Flash), *MegaFlex*, *MultiFlex*, *CeraFlex* and *MultiRapid* when all the above criteria's are observed.

To install over gypsum wallboard and gypsum based wall-patching compounds in interior dry conditions substrates must:

- Have been installed in strict accordance with manufacturer's instructions;
- Be structurally sound, undamaged and stable with is paper/coating intact, patching compound must be well-bonded, hard and durable;
- Be thoroughly primed with *Px-Primer*;
- Be clean, dry and free of any other substance that may reduce adhesion such as dirt, oil, grease, paint, etc;
- *Imper* waterproofing and crack suppressing system could be applied to increase installations performances;

PROFIX recommends the use of: *Prolastic 6500/8500* (grey, white and Flash), *MegaFlex*, *MultiFlex*, *CeraFlex*, *MultiRapid* and *Vertifix* when all the above criteria's are observed.