



PROPER INSTALLATION OF VITRIFIED TILES

Porcelain/Vitrified Tiles also known as Homogeneous tiles have gained popularity over the last few years. There are good reasons for this, they are tough, hard wearing and strong and are ideal for public areas subject to heavy traffic, external facade or areas exposed to routine spillage, heavy cleaning or chemical contamination.

Homogeneous tile as the name suggests is made of same material throughout its section and hence has a dense non-porous body unlike a traditional ceramic tile which has a porous base material. (See attached picture – Microscopic view of Ceramic tile)

The very properties which give the tile its low water absorption poses a challenge when it comes to its installation.

Plain cement and sand mortar bond to tiles mechanically. When the tile is placed in wet cement, the cement begins to hydrate. As it hydrates it forms crystals which grow into the pore structure on the back of the tile. These crystals then lock into pores forming a mechanical bond (picture attached shows open pores in a clay based ceramic tile and closed pores in a homogeneous tile).

The closed pore structure does not allow the crystal growth process to take place resulting in non formation of a mechanical bond between the cement-sand mortar and the Tile. Hence Vitrified /porcelain tiles installed with plain cement-sand mortar are highly likely to debond and there are numerous installations standing testimony to the failure of the bond.

What then is the answer?

The Tile Council of America and specifications in Europe and Middle East demand the use of Latex additives for use in Thin set/ Thick bed adhesives when installing vitrified tiles.

The Latex fortified adhesives from Laticrete impart the following physical properties:

- ❑ Improved Adhesion
- ❑ High Shear bond strength
- ❑ High Compressive strength

- ❑ Improved Flexibility
- ❑ High Shock and Impact resistance
- ❑ Improved Chemical resistance

Vitrified/Porcelain Tiles present the designer and end user with an attractive yet hard wearing finish, ideal for high traffic areas. They however require use of a proper adhesive material to provide the installation with the same durability as the tiles themselves.

PROTECT YOUR PRESTIGIOUS FLOORS & WALLS WITH THE PROPER INSTALLATION SYSTEM.

Vitrified tiles can be installed by the following methods

Thin set adhesive – Tiles can be installed using a thin set tile adhesive fortified with a latex additive when the floor/wall is absolutely level and smooth. The above system is highly recommended as the products are factory produced and packed enabling control over quality and thereby ensuring highest performance. Further it allows ease and high speed of installation.

Thick bed adhesive – When the floor is uneven and requires slopes, the tiles have to be installed using a thick bed adhesive system that comprises of Cement – sand mortar fortified with latex additives for durable and proper installation. In the above system ordinary Portland cement and sand from site are used and some part of the water to be used is replaced with the latex additive. The latex additive should not be a general product but one specially formulated for installation of tiles in the Thick bed method, this will enable the product to exhibit the superior physical and chemical properties required for such an installation.

Both the systems are suitable for installation of Vitrified tiles on floors, however when it comes to installation on walls, thin set adhesive only should be used for proper installation.

Laticrete adhesives can be used to install all kinds of Ceramic tile, Vitrified tile, Glass mosaic tiles, Metal tiles & Natural Stone over various kind of substrates.

These products make today's installations quicker, lighter, thinner, easier and less expensive.

Laticrete range of products can be used successfully in the following areas;

Commercial Floors, Industrial Floors, Swimming Pools, External Facades, Kitchens & Bathrooms, Renovation & Remodelling (ie tile over tile etc)

Before selecting a product for installation of your prestigious tiles demand from the manufacturers test reports to substantiate the claims made in their product datasheets.

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