



Floors and/or walls, of whatever nature, are generally considered to be “semi-finished”. They are to be considered “finished” when laying has been done. This is a relevant task for the design of fundamental importance for the duration of use over time. Starting with the primary load-bearing structure to the “complex composition” of the system floor/coating all functional layers contribute together to the successful outcome of the work. The proper choice of the size and thickness of the tiles and surfaces, are as important as the methods and procedures of installation, the bedding layer and hardening, load distribution, separation or sliding layer and so on to ensure the functional integrity, hygiene and safety statements. Each production of CIPA Gres undergoes regular instrumental controls to ensure the closest qualitative values with respect to the indices of legislation. Moreover, the company wants to promote the most scrupulous dimensionality of the products which means lower charges in the use of sealants when laying and subsequent smaller joints so that the jolt of trolleys is reduced for better soundproofing of work environments.

INSTALLATION

The use of tiles HI-TECH for floors with high levels of stress with different or common origin (Mechanical - Chemical - Hygrometric) require high and uniform adherence to the place of acceptance without intermediate porosity, influent on mechanical decrease (breaking strength, impermeability, frost resistance, resistance to acids and alkalis). They must have typical elastic characteristics suitable to accommodate the expected deformation of the contact surfaces to make up the difference in values of linear thermal expansion of the associated items. The joint setting expressly excluded in some European Countries in favour of the open joint is the major cause of detachment and lifting of tiles, even if the execution is long and expensive. We strongly discourage its adoption for the items of the HI-TECH programme and especially for any laying of thick tiles.

OPEN JOINT

Defined the nature of adhesive and sealant joints to be adopted on the cement or organic basis, in relation to the agents that will impact on the finish floor (Acids - Alkalines- Sulfates- Oils and Fats - Sugar solutions - Water Chlorine) it is recommended to lay with joints at the basis of the tile floor adherence not inferior to 3 mm in order to allow the anchoring of the sealant filling to the adhesion primer. In another case, if retained only minimally among the spoils of the adjacent tiles (non-absorbent) will be removed as soon as possible leaving open cracks between the tiles which are carrying to the lower layers of bacterial deposits and/or disintegrating agents. In case of outdoor floors exposed to cyclical thermal changes, this phenomenon is a primary cause of detachment due to the volume increase of the infiltration between the layers as a consequence of the frost. Bedding layer, suitably reinforced, as appropriate, and flooring above, will be properly released from the supporting structure by means of sliding sheaths and joints (compressible) expansion, interposed between the supporting structure and flooring (curtain, walls, pillars and so on) to compensate for small structural movements with the additional function of contributing to the sound insulation. For larger surfaces expansion joints will be placed to divide the surface into dimensional fields conveniently limited or otherwise positioned in correspondence of possible tensions that may affect the bilayer enticement flooring (casting, underlying structural breaks).

Several design solutions should be adopted in case of floors located on the ground floor, basement crawl space or loft on a raised floor in relation to different structural stresses to be satisfied.

LAYING RECOMMENDATIONS

The perfect outcome when laying tiles made by company CIPA GRES depends not only from technical and aesthetic qualities, but also from many other elements (substrate, binder layer etc) that build up a real system.

Laying operations, performed in the correct sequence, are as much important as the tiles themselves.

In choosing the most suitable adhesive you should follow the instructions of its producer. Moreover, it is important to check that products used for grouting, if very colourful, do not dirty the surface of tiles and that this dirt could be easily removed. It is therefore suggested to make a try before starting to grout. The project of each tiled surface must be given to an expert designer. Considering the structure, the destination of use, the load, the mechanical as well as the thermal stresses expected, he will calibrate substrates, cement layers, tiles, slope and every single aspect of laying. In addition, the designer must set out in the tender any specific building site, i.e. type and method of laying, materials, particle size, dosage, dimensions of joints, structural joints, expansion joints and so on.

CLEANING AND MAINTENANCE

Washing after laying is a fundamental phase for all next steps of maintenance. Cleaning at the end of the building-site made with buffered acid-based products, such as Deterdek of Fila, Keranet of Mapei, Delta Plus of Kerakoll or Cement Remover of Faber must be done only one time and shows the additional advantage to convey colour consistency on the surface.

Acid washing after laying eliminates the residue grout and the usual dirt of worksiter such as: mortar, glue, paint and dirt from construction site of various kinds. It is worth knowing that more than 90% of claims in the building-site are due to bad or non-existent washing with acid-based products after laying. To prevent an acid-based product used for the initial cleaning from corroding the cement-based filling of the joints it is necessary, prior to the cleaning, wetting the floor so that the joints are impregnated and, thus, protected from the corroded acid itself.

You should:

- Remove with alkaline-based detergents grease or similar substances;
- Proceed with washing after laying;
- Rinse the floor, picking up the water;
- Cleaning must be made after 4-5 days from grouting (grout must harden) and no later than 10 days. Over this period, cleaning can become very laborious; you should carefully follow the advice given by detergent manufacturer. Always carry out prior tests (on a not laid tile).

DAILY MAINTENANCE

We recommend the use of a common detergent diluted in warm water. Avoid the use of acids, alkalines, waxing and/or glues. In daily cleaning it is necessary to limit the use of abrasive (eg. steel wool or scouring pads). This precaution becomes compulsory with glossy surfaces, more subject to nicks and scratches. In case of more dirty structured surfaces, you can use a mild alkaline-based detergent, rinsing after washing. In daily practice you must consider that certain kinds of dirt (eg. dust or sand) increase the abrasive effect of foot traffic.

EXCEPTIONAL MAINTENANCE

In the case of dirt resistant to daily cleaning we recommend the use of a suitable cleaning agent according to the type of dirt and anyway, prior to use, we suggest you to do a test on a tile that is not laid. In the table “ REMOVE STAINS”you can find effective detergents according to the type of stain.