



Installation of Gommamica® complete systems

One of the most used types of base for sports surfaces is the concrete or the bituminous conglomerate. Surface parameters are significantly influenced by its quality. The underlayer should be realized in compliance with the parameters of good construction. Several layers are normally realized. The first layer consists of compacted aggregate or C8 / 10 concrete.

This first layer results covered by two layers of construction film to allow the humidity insulation, as well as by the EPS layer which provides for thermal insulation.

The following layer is realized with C16 / 20 (as minimum) concrete with a thickness of 8-15 cm.

This layer can be reinforced with dispersion fibers or steel mesh (cables diameter 12 with meshes 20x20 cm.). For large-sized surfaces this layer should include suitable expansion joints, which should remain open.

The surface should be clean, dry (the concrete humidity should not exceed 3%), roughly plastered, without concrete and cracks or breaks.

It is absolutely necessary to obtain an underlayer with a maximum humidity of 3%, so it is important to check the temperature and humidity of both the underlayer and the air when the epossidic surface is realized.

At the limit, it may be some degrees higher than the dew point.

Practically, the concrete substrates rarely meet the requested requirements.

Especially, the old concrete surfaces have often breaks, are dirty with oil, are damp and have many irregularities in the surface. Before applying any surface based on synthetic resins, evaluate the condition of the underlayer; in many cases it will be necessary some reparations which will require appropriate methodologies. One of the most common is the shot peening. It can be used to remove remains of the concrete surface, old polymeric coverings and small irregularities of the surface.

It is also used to increase the roughness of concrete surfaces that are too smooth and can cause insufficient adhesion of the resin surface.

It may be necessary to remove a significant part of the underlayer with irregularities caused by damages or highly polluted (for ex. dirty with oil), outer layers of concrete and, in this case, one of the most efficient methods is the milling.

A simple and economical preparation to be used under a resin surface is the application of a new layer of concrete.

However, this methodology has an inconvenience: it forces you to wait for a period of about 4 weeks so that the humidity of the blanket is not less than 3-4%, which is the maximum acceptable value for the application of polyurethane surfaces. In some cases, the use of specific epossidic products (sealants) may reduce this period to about 2 weeks.

Excellent underlayers for resin surfaces are also self-leveling compounds in concrete. Depending on their thickness, they allow applications of subsequent layers in a few days.

The resulting surface is also smooth, making it possible to obtain a better quality of the polymeric layer, with less consumption of the raw material.

The GommAmica sports surfaces and playgrounds can also be realized on bituminous underlayers or stabilized and leveled floors.