

CONCRETE FLOOR SURFACE PREPARATION

The better the floor base is the easier it is to get a good result with the finished floor. The laying of the floor is a lot easier if the base floor is level and it is of vital importance that the base floor is sound and firm for the durability of the floor. On new floors it is quite easy to make sure that the requirements are fulfilled, but surface preparation can be necessary on old floors.

On old floors where capillary moist can be a problem or floor base is worn and deteriorated special precautions can need to be taken. Especially if the floor base is too soft or there are a lot of problems with capillary moist.

Most cement screeds and anhydrite cements are good floor bases for our flooring systems. Basefloors should be installed with foam that separate the basefloors from the walls. Same thing counts for cables or other objects or inserts that come out of the floor.

1. Application of anhydrite floor base.
2. Cracks are opened.
3. Weak points can be reinforced with mesh.
- 4: Cracks repaired with a mix of epoxy primer and sand and reinforcement with steelbars.

The support should have a minimum tensile strength of 1.5 Mpa./15 N/mm² The base must be visually dry with a maximum moisture content of 4% without possibility to increase moisture by capillarity.

Protect everything that you have risk to stain and put foam strips around objects comming out of the floor and along the walls. Specially when you use self leveling overlays, make sure that you have no holes along the walls or inserts in the floor, where the material can escape. This can cause colour differenes and lower spots on the floor. Surface must be clean, free of dust, grease and consistent with no loose particles and disaggregated areas. To secure good adhesion the floor should be grinded and vacuumed. The floor needs to be flat and level. Cracks in the foundation must be repaired. Weak bases which can not withstand the movements of the coating must be removed and restored. This can be done by using cutting open the cracks and fill the pores with epoxy primer and dry fine sand.

The surface must be ground with rough metal or minimum 50 grit resin diamonds to open pores or shot blasted and then vacuumed.

Roller apply Epoxy Primer and spread the sand carpet over the floor. This can be done right after the crack repair. The crack repairs in the base do not need to dry if they are donde with the same epoxy material. Charge with 1-2,5 mm aggregates and let dry. The drying time depends on weather conditions, may be up to 24 hours. Vacuum/brush to remove excess of aggregates.

Mesh can be incorporated in the primer to avoid transmission of cracks from floor base. Make sure there are no bubbles and that mesh is well incorporated into the primer. On the photo on the right side you have an example of a well made surface preparation with a uniform sand carpet. The sand must be spread evenly and without "dead" spots.

