

## Case Study industrial floor

Reconstruction with Plastifloor® Industry  
at Geiger Automotive Company, Ziemetshausen - GER

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**GEIGER Automotive GmbH** is the specialist for ambitious and functional synthetic components within the international automotive supplier industry. GEIGER's expertise is in air and thermo management, in air choke controls and systems for stopping, guiding and conducting media inside the vehicle. Whether it is GIT, WIT, PIT, blow moulding, joining or automation, GEIGER is a leading supplier of automotive industry with products that contribute to more efficiency, functionality and reduction of emissions in the vehicle. In order to manufacture quality products, industrial floors must be even, preferably without joints and excavations as effective commodity and material logistics can only be realised with functional floors.

For the reconstruction of GEIGER's industrial floors the focus lies especially on quickest availability of the areas, preferably without a closedown of production, in order to save expenses and for the lowest possible loss of production. These exactly were the decisive factors for choosing the **Plastifloor®** coating system for industrial floors for the reconstruction of production areas in GEIGER's factory Ziemetshausen by our contractor ADC-Beschichtungstechnik GmbH. The client selected the **Plastifloor® Industry floor system** produced by Plasti-Chemie International GmbH and installed by our partner ADC-Beschichtungstechnik GmbH because it satisfies the client's requirements and can already be used only 2 hours after installation.

The following pictures show the proceeding for floor reconstruction with **Plastifloor® Industry floor coating resins**. They show the original state on Friday morning as well as the completed industrial floor that is fully cured on Sunday afternoon:



The floors are uneven.



Joints are broken.

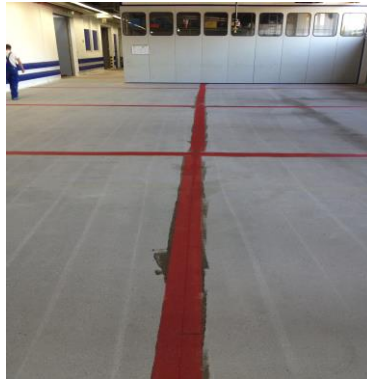
At first, the existing but damaged resin floor needed to be milled and the concrete substrate below required shot-blasting in order to remove cement slurry and to ensure a secure bond between coating and substrate. Existing joints, cracks and holes were filled with mortar **Plastifloor® 510**. Finally the substrate was deep-cleaned with a vacuum cleaner before the new **Plastifloor® floor** could be installed.

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Shot-blasting



Joints were reinforced.



Cracks were sealed

The prepared substrate has an adhesive tensile strength of 1.5 N/mm<sup>2</sup>. This value is required for ensuring a secure bond of the coating system to the substrate. The floor was primed with **Plastifloor® 112** – with a consumption of about 0.4 kg/m<sup>2</sup>. Partially the uneven substrate needed revision with resinous mortar made of **Plastifloor® 510** and mortar mixture C2 in order to create an even surface. For closing cracks in the substrate, **Plastifloor® 510 mortar resin** was mixed with Plastifloor s/l filler, mix ratio 1:1, and filled into the cracks that needed to be closed.



Application of primer Plastifloor® 112



The substrate's pores are completely sealed

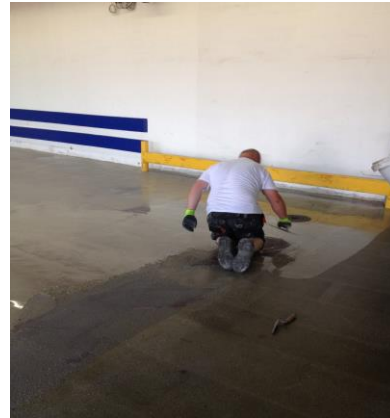
Then followed the installation of a flexible membrane with **Plastifloor® 332/z** - with a consumption of about 3.0 kg/m<sup>2</sup>. This flexible, shock-absorbing intermediate layer allows a jointless and permanently crack-free installation of the new resin coating with **Plastifloor® 418** plus s/l filler, mix ratio 1:1.

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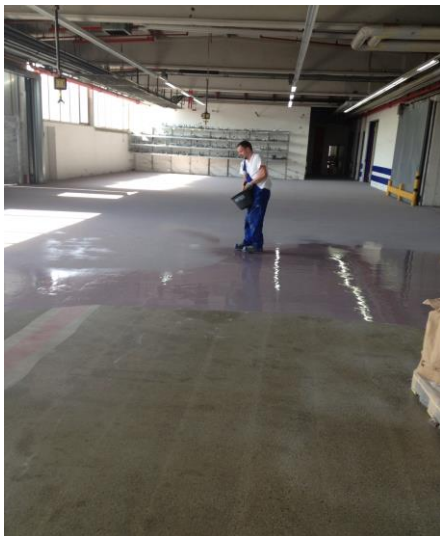


Mortar for fitting holes.

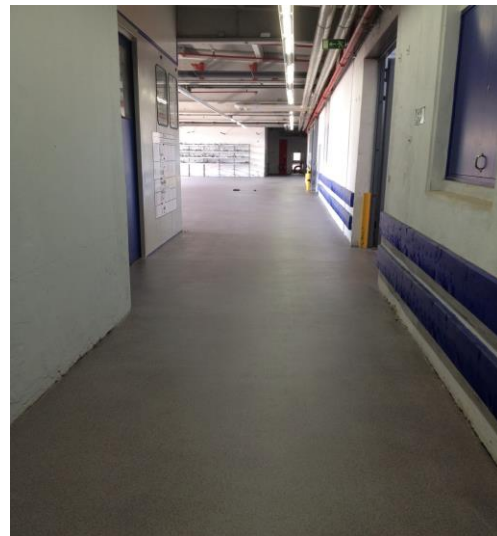


Installation of membrane with Plastifloor® 332/z.

In order to achieve the required slip resistance class R 11 as well as to enable an attractive colour design, the wet coating was broadcast to excess with colour quartz sand before the top sealer with **Plastifloor® 522** - with a consumption of about 0.6 kg/m<sup>2</sup> (double application) – could be applied with a roller.



Installation of slurry 418, broadcast



Sealed top coat, 522

### Plastifloor® floor coating's advantage is obvious:

Due to the short curing times between the single layers, reconstruction works can be realised by a specialized company within a very short time slot. Thus the client saves precious time and expenses that would result from a loss of production. For example a new tile floor cannot be strained immediately after installation and the problem of joints that are quickly washed out by cleaning will emerge again after a short period of time. Epoxy resins are thermosetting materials. They do not withstand the thermal and dynamic vibration strain in an industrial plant. Thus a hard and tough acrylic resin floor with **Plastifloor®** is the right solution for the client.



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The completed and jointless Plastifloor® floor can be fully loaded only 2 hours after its installation.

**Plastifloor®** is a thermoplastic material. Elongations of materials during changing temperatures are being coped with more easily. Fallen parts are equally easier absorbed by this floor as it is being installed in several layers and is thus vibration-absorbing. **Plastifloor®** is skidproof and easy to clean. The coating is tested according to LMBG and approved. Thus the floor can be installed in plastic- and metal-working plants without any hesitation.

The result is convincing. Production could be re-launched on Monday already.

**Plastifloor®** is the ideal floor coating for new buildings and reconstruction works in the automotive industry. It persuades by its wear resistance, fast installation time and the cost-benefit ratio. **Plastifloor®** can be installed according to the safety organization's directions in slip-resistance classes R 9 – R 13.

We dispose of 20 years of global experience and references. **Plastifloor®** floors are globally available and we provide worldwide technical support.

Ask us for experienced flooring companies in your area. You can choose from a variety of colours and surface structures. Phone: +49 3741 5583-0. You find videos on our website or on [www.youtube.com](http://www.youtube.com). Of course we also send you informative literature by mail.

Data concerning our products and devices as well as concerning our data and procedures are based on an extensive research work and an application technology experience. We convey these results, with which we do not take over liability going beyond the respective single contract, in word and writing after best knowledge, reserve ourselves we however technical changes in the course of the product development. That does not relieve the user however to examine our data and recommendations before their use responsible for the own use. That applies also regarding the keeping of patent rights third as well as for applications and procedures, which are not expressly in writing indicated by us. © Plasti-Chemie International GmbH, 2013.