

Sealing cast resin floorings based on EP and PUR resins

1 GENERAL

For many years cast resin has been used for floors based on epoxy or polyurethane. These kinds of mass are also described as SR (synthetic resin) screeds. Typically used in the areas of industrial and functional floors, these kinds of floor are becoming increasingly popular in decorative areas. Self levelling resin coatings are also found in use in the framework of construction waterproofing.

The high performance of such floors has a limit, which means an on-top sealing with a Dr. Schutz sealer makes sense. These are typically glossy, as a matt finish is impossible to achieve with 100% resin and are therefore relatively prone to scratches. However, a matt finish is possible with the waterbased sealers from Dr. Schutz in every gloss grade. Moreover, the cleanability of the surface is improved, antislip effects and surface texturing to achieve R-classification are possible. After many years of course it is possible in the framework of renovation to refurbish a resin floor by sealing with a waterbased coating material. Here you will find out what you have to pay attention to.

2 Surface preparation - Deep cleaning

New Cast Resin Floors

In the course of casted coatings auxiliary resources such as silicone are frequently used, in order to positively influence flow properties and deaeration. However, such substances do not have an advantageous effect on the adhesion of subsequent sealing. The degree of hardening reaction of the casted resin can also often impede the lacquer adhesion of the sealer. Therefore, please pay attention to the manufacturer's recommendation as to when the floor can be used. In the case of significantly exceeding the hardening time we recommend working on the floor as described under renovation.

Generally, a floor which is to be lacquered must be professionally prepared. Unless explicitly stated otherwise in agreement between Dr. Schutz and the cast resin manufacturer, an abrasive wet cleaning is recommended. For this purpose, apply **Dr. Schutz Clean&Strip** in a dilution of 1:10 with water generously (250 ml/m²) onto the floor with a mop or applicator before going over the floor with a single disc machine and a **Dr. Schutz PU Renovation Pad**. Alternatively, if there are problem areas which must be sanded down, we recommend using a **Dr. Schutz Abranet** 120 grain. The sufficient roughness of the sanding material is dependent on the hardness of the poured floor and the square meters, which should always be scrutinised critically. Clogging of the sanding material can be avoided by preceding it with a higher pretreatment of the mopping solution. Vacuum up the solution and remove the remaining sanding dust and cleaning materials by mopping with clear water. If necessary, mop the floor again. Before the subsequent sealing the floor must be dry.

The results of preparation must be assessed critically. The surface of the floor must be completely matted.

Renovation of old cast resin floors

Dirt and the remnants of care products must be carefully removed. Problem areas, such as scratches and surface degradation by weather and lighting, especially in the case of deep drawn windows and strong light incidence, as well as nonadhesive previous sealer, must be sanded out cleanly.

For this purpose apply **Dr. Schutz Clean&Strip** diluted in a ratio of 1:5 with water, generously (250 ml/m²) onto the floor with a mop and go over the floor carefully in several steps of sanding with the single disc machine and the **Dr. Schutz Abranet** 80 grain, followed by 100 grain and, if necessary 120 grain. The finer wet sanding steps can only be carried out using water. The use of a satellite disc, as well as sufficient sanding pressure, is especially

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recommended. The sufficient sharpness of abrasive materials is dependent on the hardness of the cast resin and its square metres, which are to be assessed critically. Clogging of the abrasive material can be avoided by increased premopping of the floor, or rather it should be rinsed from time to time. Vacuum up the dirty solution and remove the remnants of sanded dust and cleaning agent by mopping with clear water. If necessary, repeat mopping. Before subsequent sealing the floor must be dry.

The result of preparation must be assessed critically. The entire area of the floor must have a matt surface.

Please note:

- Cast resins are often formulated with hard fillers, e.g. quartz powder. This kind of surface can quickly wear down the sanding material. In extreme cases it is preferable to use diamond abrasives.
- The way sanding is carried out also depends on the desired matt grade of the subsequent sealed finish. The less matt the surface, the finer the final sanding will turn out.

3 SEALING

Sanded cast resin floors are lacquered with a coat of 100 ml/m² of a transparent Dr. Schutz sealer, applied evenly with the Aquatop roller. On coarsely sanded floors we recommend a further coat of sealer. If necessary, sanding between coats with a sanding disc 120 grain, or even applying lacquer between coats with a trowel, especially for glossy qualities.

The preferred sealer quality is **Dr. Schutz PU Sealer**. You have the choice of gloss grades from glossy to ultra-matt. If particular resistance to chemicals is required, we recommend **Dr. Schutz PU Anticolor** as an alternative, our advice is to select the grade semigloss for the highest protection against discoloring influences, for example hair dyes or car tires.

Cast resin floors are often sealed with the basic pigmentation of the floor. The particular advantage of this is so that the first deep scratch does not immediately expose a different color. Otherwise it goes without saying that you can choose from the entire range of colors. For this purpose, **Dr. Schutz PU Color** is especially suitable, whereby all the possibilities of the Dr. Schutz Design System are available. PU Color is also recommended when the abrasive pretreatment of the floor has resulted in cloudy variations in color, which is possible particularly in cast resins based on aromatic basic substances, as well as light incidence. PU Color is usually finished with at least one coat of transparent sealer.

Very conductive EP floors are sealed with **Dr. Schutz ESD Topcoat**, so that the floor is well protected and able to be cleaned. When the floor is no longer sufficiently conductive, due to usage over time, we recommend applying **Dr. Schutz ESD Basecoat** or **ESD Colorbase**, because both these products increase the conductivity of a worn conductive floor. These sealers are also finished subsequently with **ESD Topcoat**. The ESD sealers may only be used by our certified partners.

Please note:

- EP floors are typically very hard and can be worked on without any further setting of the sealer.
- PU floors, particularly those based on especially light-resistant aliphatic resins, often feature increased elasticity. In order to avoid cracks forming in the sealer coating we recommend a modification with **Dr. Schutz Flex Add**, especially for sealing with PU Color or PU Anticolor on surfaces with a shore-hardness of less than D 60.

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- With **Dr. Schutz R10 Antislip Add** or **R11 Antislip Add** the slip resistance can be specifically set as required.

4 CLEANING & CARE / MAINTENANCE

In principle floors should not only be cleaned, but also taken care of. By cleaning something is removed from the surface (e.g. dirt, sand, friction marks). Caring for the floor means adding something which provides the floor with the best possible protection against the effects of water, dirt and abrasion, as well as preserving its attractiveness. Care has the primary technical purpose to keep the surface sealed, because it is impossible to avoid scratches on floors. That is why any guarantee for the floor can only be given if the care instructions of the contractor are followed.

For sealed resin floors Dr. Schutz offers general Cleaning and Care instructions for PU sealed surfaces (you can find the file [here](#)). Please also note in these general instructions the advice to install clean-running zones in entrance areas, as well as furniture gliders, to mitigate the effect of chair castors and other factors.

5 GENERAL ADVICE

The Product Information about the above-mentioned products must be heeded.

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