

# Preparation of sub-surfaces

## prior to the application of Dr. Schutz finishes

### 1 General

Surface coatings, whether permanent finishes or care films, can only deliver good results if the subsurface has been professionally prepared. Should the coating not adhere properly, then the consequences can be delamination and/or poor mechanical or chemical endurance.

For the process of coating there is a distinction and relation between wetting and adhesion.

By well wetted we refer to an entirely closed wet film. This is necessary so that the remaining dry film also entirely covers the whole subsurface. To wet the surface well, it is necessary to thoroughly remove any water-repelling substances (e.g. waxes, silicones, etc. ...) by wet cleaning, leaving it free of any residues. Poor wetting can be recognized when the liquid seems to shrink on the surface („forming islands“), which reveals non-wetted spots.

The adhesion of coating to the subsurface is the key to how the layer is anchored to the surface. This can be attributed to a chemical reaction with the surface, and/or to a mechanical embedding in the roughness of the surface. For this purpose the surface must also be carefully cleaned beforehand in order to enable the coating to adhere. Roughening by sanding, respectively abrading with a sanding pad for mechanical embedding is necessary on smooth surfaces, hardened coatings, or particularly on factory-applied permanent-coatings. Typically abraded surfaces are also easier to moisten.

In order to fulfill these parameters for a coating, it is necessary to strip and clean the floor. As the result is heavily dependent on workmanship, it is clear that the responsibility for the result lies with the applicator doing the work. In this respect it should also be emphasized that various surfaces require different intensities of preparation. Therefore the treatment of the surface must be carried out with expert knowledge and experience. Before stripping and cleaning, the floor must undergo an expert assessment, if nothing specific is known about its condition. The likelihood of the subsurface being damaged by water and chemical cleaners, as well as by mechanical work, must be included in such an assessment. Depending on the degree of damage probability, such reservations should be made known.

In the following you will receive guidance as to how these requirements for coating floors on the building site can be safely fulfilled. Please note that mistakes in pretreatment, especially with permanent coatings, can only be corrected with a great deal of time and trouble, if at all.

### 2 Implementation

#### The Machine:

Floors must be carefully stripped and wet-cleaned before treatment with coating materials. As a rule this is effected by means of a slowly running monodisc machine (150 rpm), e.g. the **Dr. Schutz SRP1**, using suitable pads. The effectiveness of the machine can be increased with additional weights.

#### The Pad:

For the preparation of a permanent coating with **Dr. Schutz PU Sealer / Waxnomor** or **Dr. Schutz PU Anticolor / Marknomor** only the **Dr. Schutz PU Renovation Pads** are suitable, as they have

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been tested and approved by our company. The range of a pad depends on the individual properties of the floor, especially its hardness, and is limited to a maximum of 50 m<sup>2</sup>/per pad side. As soon as the pad begins to lose its sanding effectiveness, because it has been worn by the subsurface, or because care products or dirt have clogged the pad, it is necessary to replace it directly with a new pad before continuing.

If an initial care treatment with **Dr. Schutz Secura**, **Dr. Schutz Floor Mat**, **Dr. Schutz Floor Shine** or **Dr. Schutz Medica** is planned, strip-cleaning with hard green pads should be carried out, while initial care with **Dr. Schutz Floor Cleaner R1000** requires a red pad.

#### The Cleaner:

**Dr. Schutz Clean and Strip** (mid-level alkalinity, all floorings) is to be used in this wet cleaning, if no thick polish layers have to be removed, or if only dirt or mopped care products need to be emulsified.

**Dr. Schutz Turbo Strip** (mid-level alkalinity, all floorings, linoleum after a test sample) or **Dr. Schutz Super Basic Cleaner** (high alkalinity, only PVC and PU-floors) also dissolve thicker dispersion care layers effectively through wet cleaning and facilitate their removal with the pad.

The applied concentration of the cleaning agent depends on the substances which are to be removed. Recommendation: start with 5 parts water to one part cleaner, if necessary increase the concentration up to undiluted. Coverage 150-250 ml/m<sup>2</sup>. A soak-in time of 10 minutes is recommended, in more difficult cases also longer. Please ensure that the areas with strip-cleaning solution are always kept moist. Drying out areas must be avoided. When using these cleaners, keep a distance to neighboring fixtures and fittings, so that the surface of these is not damaged. Areas at the edges should be worked on by hand with due care.

#### The Post-treatment:

Subsequently the surface is carefully cleaned and neutralized several times with clear water. In the process the dirty solution and loosened care products are removed. In order to take up the cleaning solution we recommend a wet vacuum-cleaner, e.g. **Dr. Schutz Sprayboy with wet-suction nozzle**. When using alkaline strip-cleaners the result of neutralizing can be evaluated with a universal indicator paper and is good at a pH value of the solution of less than 8. Please note: the indicator paper can also be laid on moist joints, in order to test the degree of neutralization locally.

In order to guarantee the optimal adhesion of permanent coatings on factory-applied PU-coated floorings, support of the neutralization is required by using a monodisc-machine (e.g. the **Dr. Schutz SPR 1**) and a new **Dr. Schutz PU Renovation Pad** (max. 50 m<sup>2</sup>/per pad side). In this way the surface gets again a light surface sanding.

The result of the cleaning has to be evaluated with expertise.

#### The Drying:

The drying of the floor is supported by good ventilation. It can be accelerated by heating, or working with an electric fan (e.g. **Dr. Schutz Turbo Fan 4500**). Please note that especially joints and the corners of rooms need longer drying times.

Prior to the sealer application the floor surface must now be clean and dry, free of dust, fat, oil, wax and care layer residues. On floors with a removable factory finish this must be fully removed.

### 3 Notes & advice

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- For newly laid floors before the first treatment of the surface: Please inform yourself as to what extent a coating is agreed and recommended by the manufacturer of the flooring. Ask our advice on technical applications.
- If the safe application of the surface treatment cannot be regarded as beyond doubt, a sample area should be set up for testing.
- When abrading, the floor must be sanded and not polished! Fast-running machines are more likely to lead to a polishing effect. High speed monodisc machines are therefore not suitable. Sanding must be carried out with sharp abrasives, blunt or clogged abrasives tend to polish. To have a polished surface is exactly the opposite of the desired effect, because it is then even more closed than to begin with, rather than being opened by sanding as desired.
- The Product Information and Safety Data Sheets of the above mentioned products are to be heeded.

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