

Sealing of decorative screeds

1 GENERAL

Decorative screed floors enjoy increasing popularity because of their reductionistic industrial appearance “like a concrete floor“. What is more, these floors can become uniquely expressive Design floors with products offered by various manufacturers and techniques of flooring professionals. In order that such floors also have an acceptable reaction to cleaning behaviour and dirt sensitivity, we recommend applying a sealer, namely an additional layer with a transparent lacquer system.

Similarly to wood, screed floors have an absorbent sub-surface. As with wood, the absorbency must be satisfied, or blocked, so that during use liquids cannot lead to discoloration or even to substantial wear. However, in contrast to wood the surface has no preferred direction caused by the tree’s growth, nor on the sub-surface structure due to the wood-cut. The inconsistency caused by the flooring professional’s application can therefore easily lead to noticeable abnormalities (traces of the roller, overlapping marks), which to a certain extent must be accepted. While wood has a slightly acidic pH value, screed floors consist of alkaline materials, for which a surface material must be suitable.

2 SUBSURFACE

A flooring compound should be certified by the manufacturer as suitable for creating decorative screed floors. As the screed floor is subject to the same mechanical and chemical stresses and strains as other floors, for longer than the lifetime of the floor, according to our experience cement-bonded flooring compounds are basically suitable. Cementitious screeds are also formulated individually, depending on the manufacturer.

Selected flooring compounds were successfully tested with our sealing system and approved by us, with due regard to our product information. A current list of the approved flooring compounds can be found [hier](#).

What is particularly important in our approval tests is the adhesion of the sealer to the sub-surface without seriously restricting the important functions of the surface. However, the flooring compounds can react visually to a lesser or greater extent to the marks of the roller application. Polymeric ingredients of the flooring compound minimizes this conveniently.

For other flooring compounds not approved by us, we recommend pre-testing the suitability for sealing on your own responsibility.

Please note:

- The stipulations of the flooring compound manufacturer must be heeded.
- Our approval tests take place according to the details of the flooring compound manufacturer and our recommendation for building it up is at 20-23 °C / 40-60% rH (relative humidity) and represent its basic suitability. However, deviations from these conditions on site can result in different outcomes. Therefore, we still recommend pre-testing the adhesion of the sealer.
- Our pre-tests take place on dry, hardened flooring compounds. Low temperatures and increased air humidity, or poor ventilation can lead to residual moisture - also locally in corners. This can have a negative influence on the adhesion of the lacquer.
- If the flooring compound has not dried sufficiently, this can cause colour changes in the sealer. Our sealers are themselves typically stable in colour and do not turn yellow.
- This means the flooring compound must be dry. In this regard pay attention to the relative air humidity in the room, which should with closed windows not be increased. However, the area should not be left un-

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treated for longer periods.

- We draw your attention to the fact that, depending on the age of the flooring compound, we had varying results regarding suitability. Therefore, ensure that only fresh and correctly stored flooring compound (check expiry date) is used.
- A subsequent pigmentation of the dry, or wet compound to create a colourful design can impair the adhesion of the sealer. Tape off areas to test beforehand!
- For subsequent sealing the surface must be able to bear weight. It must be free of sintered skin, suspensions, dust and dirt.
- We recommend only carrying out the sealing under good construction site conditions, 18-25°C, 40-65% rH, floor temperature above 16°C, switch off under-floor heating well in advance.
- Flooring compounds should be well de-aerated before sealing; otherwise the pore closure is not guaranteed for certain.
- We recommend a groove test for untested flooring compounds, to establish their hardness. Soft, crumbly flooring compounds make no sense for decorative screed floors.
- Flooring compounds based on gypsum or calcium carbonate are not approved and not tested. However, the flooring compound manufacturer can, after their own pre-testing, give approval for use with our lacquers.

3 PRIMING

The application of primer is essentially responsible for the adhesion of the sealing coat and the color image of the surface.

Isocyanate-free primers have an advantage, because the water in the sealer and the alkalinity of the sub-surface can soon lead to carbon dioxide formation, from which bubbles appear. In individual cases, depending on the flooring compound, this tendency is reduced and it can be sealed directly. Dr. Schutz Primer for Decorative Screed Floors is a water-based single-component product and serves as a primer-blocker, in order to prevent such a reaction to the subsequent 2-component sealer.

Currently floors with especially low brightness (color enhancement) are trendy. Dr. Schutz Primer for Decorative Screed Floors, as a water-based product has low color enhancement. If a stronger color enhancement is desired, we recommend euku oil 1FS in 2-component application, together with euku master FS.

Apply Dr. Schutz Primer for Decorative Screed Floors in one coat with the Aquatop-roller until the sub-surface is saturated, cross-wise i.e. first from side to side and then at right angles, with 60-80 ml/m². Do not allow to dry during the application. Do not pour onto the surface but take the lacquer out of the bucket with the roller. Can be carefully walked on and worked on with Dr. Schutz PU Anticolor after approx. 1-2 hours, but not longer than 12 hours (at 20 °C, 50% relative air humidity, ventilation). Applying the primer coat with a roller can be associated with traces of the application, whereby various flooring compounds can react differently and visually. A sprayed application to smoothen the floor with the roller can create a more even color image.

Alternatively, roll out euku oil 1FS/euku master FS 10:1 evenly with the oil-roller with 60-100 ml/m² (depending on the absorbency of the sub-surface). Saturate the sub-surface as much as possible but try to avoid any excess. If, after allowing 20-30 minutes for the oil to soak in, there is still excess, then this must be removed using a mono-disc machine with a pad or cloth underneath. The subsequent sealing may only be carried out after the complete

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drying of the oil, typically 24 hours at 23 °C/50% rH/ ventilation.

4 SEALING

Flooring compounds are very receptive towards liquids, as can be recognized in the immediate deepening of color when exposed to water. This is of course not desired, because the floor is supposed to be resilient and should not change. This can be achieved with a coating on top, for which nowadays a waterbased sealer is used. The task of sealing is to make the floor impervious to liquids and to bring about good cleanability. In addition, features such as gloss and slip resistance can be influenced specifically.

On the one hand the quality of the coating is naturally decisive for imperviousness, but on the other hand the thickness applied is especially important. It is essential that the coating is applied generously, with approx. 100 ml/m² per application. In normally used domestic areas two coats (in addition to primer) are recommended, in more heavily frequented commercial areas a third coat should be added. The sealing product which we particularly recommend is Dr. Schutz PU Anticolor (2-3x 100 ml/m²), as this sealer has proven to be the best on various flooring compounds regarding adhesion of the lacquer. Alternatively, for special effects after the first application with Anticolor, other Dr. Schutz sealers can be applied as further coats.

If a coloured floor is desired, then Dr. Schutz PU Color lends itself to this purpose. Our recommendation: 2-3x 80 ml/m² and a Dr. Schutz 2-component sealer of choice applied as a transparent finish.

Our sealers are only approved for indoor areas. An application outdoors might be possible but has not been tested by us. From our position we cannot approve use in wet areas (e.g. showers) but sealing in moist rooms (e.g. the area in front of the shower) is possible. Firms offering systems can, after their own tests, also use our sealers in special areas.

5 CLEANING & CARE

In principle, floors not only need to be cleaned, but also cared for. In the cleaning process, something is removed from the surface (e.g. dirt, sand, scuff marks). When applying care products something is added, in order to protect the floor against the effects of water, dirt and abrasion in the best possible way and to preserve its attractiveness. Care products have the primary technical purpose of keeping the surface sealed, because there is no floor without scratches. Therefore, we can only guarantee lacquered screed floors if the care instructions are followed by the flooring professional.

For sealed decorative screed floors Dr. Schutz offers pre-formulated care instructions, based on Dr. Schutz PU Cleaner and Dr. Schutz Floor Matt (you can find the file here). Please pay attention to the general advice given, which includes clean walking zones in entrance areas, furniture foot-gliders, damage from chair castors and other factors.

For the purpose of care it is also possible to occasionally apply a follow-up sealing as a maintenance option. For this it is necessary to begin by strip-cleaning the floor and sanding the entire area. Subsequently any Dr. Schutz sealer can be used, as the sub-surface is already pre-sealed. Thereby the gloss grade and slip-resistance can be specifically determined.

7 GENERAL NOTES

The Product Information for the above mentioned products must be heeded.

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