

Technical Assessment



Comparative test of the Pro Care system for sealed joints as well as improved cleanability

Commissioned by:

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1.0 Scope of Assessment

Testing LVT (luxury vinyl tiles) in the form of planks or tiles with and without *Pro Care System*, with regard to the effective sealing of joints and soiling characteristics.

2.0 Description of System

The Pro Care System is a supplementary 2-component sealing of PROJECT FLOORS LVT coverings with Dr. Schutz PU Sealer or PU Anticolor.

3.0 Testing the Impermeability of Sealed Joints

3.1 Test surfaces

LVTiles from the collection floors@work of PROJECT FLOORS served as test surfaces, which were glued to two transparent glass plates, in order to be able to recognize possible leakage or penetration of cleaning or disinfectant solutions.

In order to allow an untreated reference surface for every test surface, half of each of these were scoured with Clean & Strip (Dr. Schutz), diluted in a ratio of 1:5 with water and using a (green) grit-brush. After vacuuming off the strip-cleaning solution, these same surfaces, using an Abranopp extreme pad (Dr. Schutz) were rinsed with clear water and that water removed with a wet-suction cleaner.

After the complete drying of the test surfaces, PU Sealer satin (Dr. Schutz) was applied to one strip-cleaned half, and the other half was sealed with PU Anticolor satin (Dr. Schutz). These sealers were applied in two coats, crosswise with a roller, using approx. 50ml/m² with the Aquatop roller (Dr. Schutz).

3.2 Treatment materials

For carrying out the trials, the commissioner specified the following products:

- Disinfectant Cleaner K (Dr. Schutz), applied in a 5% concentration for the test surfaces:
PU Sealer satin / untreated reference surface
- PU Cleaner (Dr. Schutz), applied in a 0.5% concentration for the test surfaces:
PU Anticolor satin / untreated reference surface.

For better visualization of possible leaking of the treatment materials, a dye solution was added to them.

3.3 Description of Trial

The half-sealed test surfaces were wet-mopped in a single step with the treatment solution, as described in point 3.2, over the entire area 25 times. For this purpose a velour-type of micro-fibre wide-mop cover, spanned across a holder, was immersed in the treatment solution and slightly squeezed out with a flat press.

After the drying stage of each mopping step the rear side of the test surfaces was assessed for possible leakage of the dyed treatment solution.

3.4 Results of Trial

On both of the sealed test surfaces no leakage of the treatment solution could be discerned after being wet-mopped 25 times.

On the non-sealed test surfaces penetration of the PU Cleaner solution could already be discerned after being mopped 5 times and with the Disinfectant Cleaner K solution penetration could be identified after mopping 6 times.

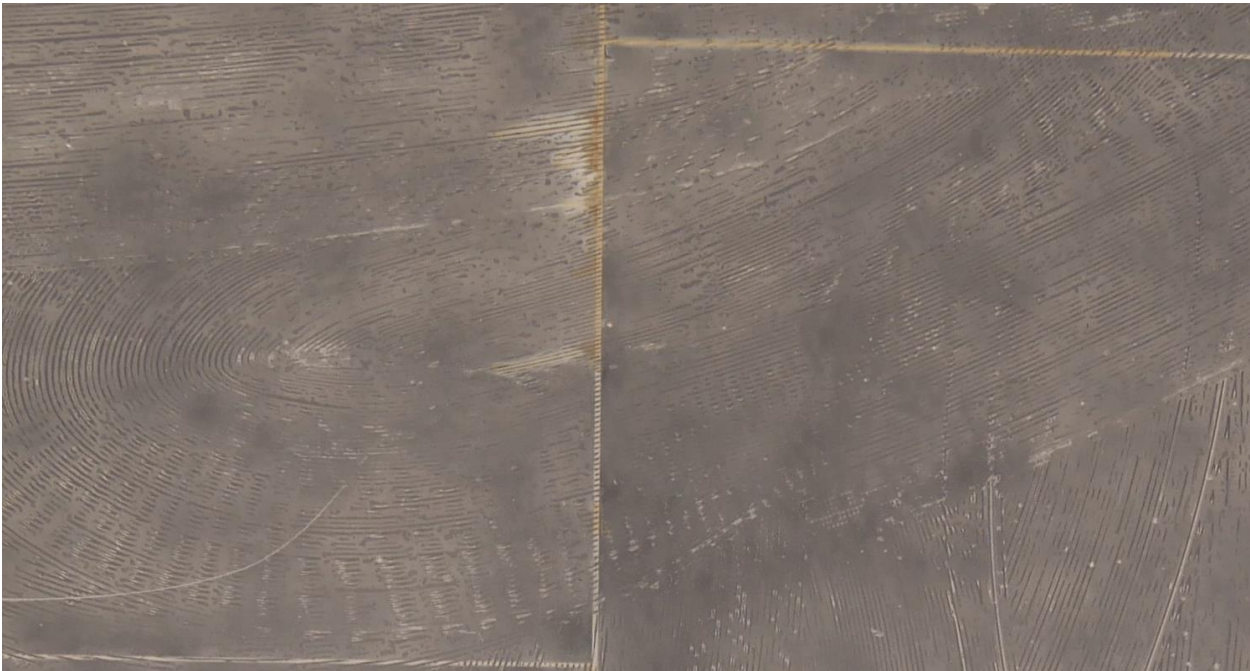


Figure 1: Penetration of dyed Disinfectant Cleaner K solution after wet-mopping 6 times on the unsealed half

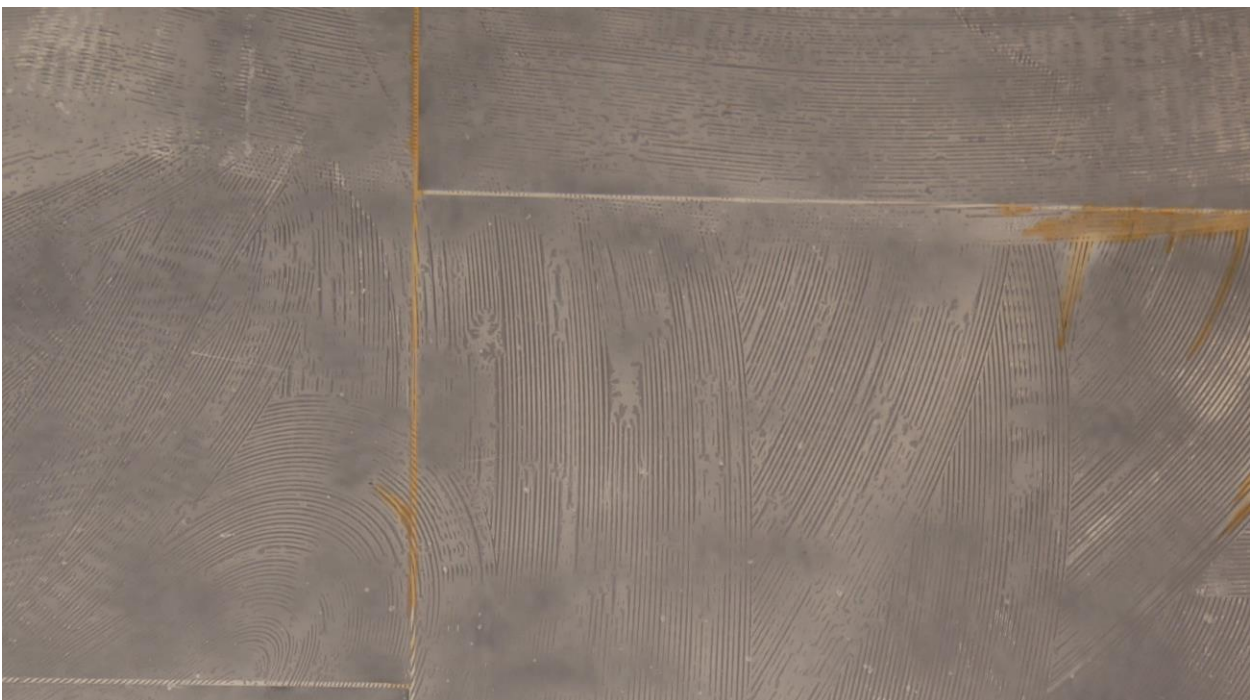


Figure 2: Penetration of dyed PU Cleaner solution after wet-mopping 5 times on the unsealed half

In addition to the waterproof closure of joints, the sealed test surfaces clearly show a lower soiling by the dyed treatment solutions, compared to the unsealed reference surfaces.



Figure 3: after 25 times wet-mopping with dyed Disinfectant Cleaner K solution; on the left PU Sealer satin, on the right unsealed



Figure 4: after 25 times wet-mopping with dyed PU Cleaner solution; on the left PU Anticolor satin, on the right unsealed

4.0 Summary

It was possible to ascertain that by using the Pro Care System an impermeable closure of joints can be achieved, which prevents the penetration of PU Cleaner solution and Disinfectant Cleaner K solution.

In comparison with unsealed surfaces, those LVT coverings sealed with PU Sealer and PU Anticolor clearly showed lower soiling characteristics.

By sealing the entire area with a 2-component sealer the surface structure of the LVT coverings is altered, so that deeper levels are filled up to a certain degree. On the one hand this reduces the adhesion of dirt on the floor - especially on joints areas - and on the other hand cleaning the floor by wet-mopping becomes noticeably easier because the mop glides better.

Due to the much lower soiling characteristics of LVT coverings and their easier cleaning, it follows that germs can also be more easily removed. This means that the Pro Care System facilitates the maintenance of high hygiene standards, in comparison with non-sealed LVT coverings.

An LVT floor, sealed over the entire surface with a 2-component permanent sealer is easy to clean and therefore fulfills the requirements of TRBA 250 (point 4.1.4). Consequently LVT floors which are sealed with an appropriate 2-component PU sealer are also suitable for health care areas.



Metzingen, 24th February 2020

Institute Director

A handwritten signature in black ink, appearing to read 'M. Lutz'.

Martin Lutz
state-certified cleaning and
hygiene technician