



Installation Manual



- Aqualine PU PRO is a premium quality, water-based concrete floor coating. It is eco-friendly and is low-VOC (including Part B and any tint) and a non-dangerous good. It has outstanding chemical and mechanical resistance.
- As with any chemical read Technical Data Sheet, Safety Data Sheet and any precautionary labels on containers. Also, ingestion, inhalation and prolonged repeated skin contact should be avoided by good occupational practice. Always wash hands before smoking, eating, drinking or using the toilet. Safety first! Wear PPE conform SDS and instructions. Use respirator device when spray applying. Wear protective gloves and safety goggles.
- Minimum and maximum temperature: min. 10° Celsius - 25° Celsius
- Surface temperature: min. 5° Celsius
- Practical spreading rates will vary depending on such factors as method and conditions of applications and surface roughness and porosity.
- Do not close pails with mixed coating! Danger of explosion!
- Consult Technical Data Sheet and Safety Data Sheet before usage. Latest version available via info@stellmann.com.au

- New concrete must cure for a minimum of 28 days before applying Aqualine PU PRO. Ensure surface is thoroughly dry before application (< 3% building material moisture). The surface must be structurally sound and the substrate compressive strength should be at least 25MPa. The substrate tensile strength should be at least 1.5N/mm².
- All non-structural cracks and holes need to be repaired.
- In general, the surface to be treated needs be clean and free of all traces of loose material, dirt, debris, oil, grease, old flaking coatings, curing compounds, release agents, laitance, dust and other contaminants.
- **All new or old concrete surfaces should be prepared by mechanical grinding, abrasive blasting, etching, or any other suitable preparation/cleaning methods. Always check if all traces of oil and other contaminations have been completely removed before applying Aqualine PU PRO.**
- Substrate must be sealed off from rising moisture. Apply sample area in case of doubt.
 - Approved moisture barriers: Oxtex X220 Moisture Fix.
- Aqualine PU PRO is a premium quality water-based concrete floor coating. It does not require a primer when applying to concrete. Instead, the first layer acts as the primer layer.

Surface Prep

- Thoroughly clean area using Stellmann Prep & Maintenance Cleaner or another alkaline based cleaner in conjunction with water and a stiff bristled brush removing all dirt, dust and unwanted materials etc. Wash clean until all foaming ceases using a hose or power washer.
- Cleaning ideally performed one or two days prior to the application to allow the surface to dry before applying Stellmann Aqualine PU PRO. Because concrete is porous, it will absorb moisture during the cleaning process.
- Ensure surface is thoroughly dry before starting the application. Perform a moisture check in case of doubt. See TDS for acceptable moisture levels.



Moisture Test (Simple)

- If you do not have an appropriate moisture reader, use the following method:
- Apply Plastic Sheet: Cut a clear plastic sheet (30x30 cm) and tape it tightly around all edges to seal it to the floor. Use duct tape for a secure seal.
- Wait: Leave the plastic sheet in place for 24 hours. Ensure the area remains undisturbed.
- Check for Condensation: After 24 hours, remove the plastic and check the underside. If you see condensation or the concrete appears darker under the plastic, there is moisture present.
- Evaluate Results: If moisture is detected, further drying or a moisture barrier may be necessary before applying Aqualine PU PRO.



Surface Prep

- Conduct a surface check
- All new or old concrete surfaces must be prepared by mechanical grinding, abrasive blasting, etching, or any other suitable preparation/cleaning methods.
- Repair cracks and holes with concrete filler
- Make sure the surface is clean after grinding. Best way to do so is by a thoroughly cleaning (wet) and drying the surface



Surface check

- Significant flaking visible of previously applied single component coating around cracks in the concrete.
- Old coating needs to be ground down.
- Cracks needs to be filled.



Surface Prep

- Old flaking paint has been removed by grinding.
- Cracks are being prepared to be filled up. Prepping by cutting cracks deeper so filler will bond better.



Prepping

- Cracks have been professionally filled with a concrete filler.
- Surface has been cleaned and moisture content has been found within the limits.

Preparation

- Find an appropriate area to mix Aqualine PU PRO.
- Use a drop sheet to avoid spilling material.

Tools

- Electrical precision scale
- Mixing cups
- Electric drill
- Large drill head for Part A
- Smaller drill head to mix both components
- Bucket with water for clean up
- Cloth or paper towels
- Paint tray

Coating Preparation

- Thoroughly stir Aqualine PU PRO Part A before use with an electrical mixer for at least 5 minutes. Make sure to mix in any material sitting on the bottom of the bucket.
- Part A needs to be mixed every time prior to use.



Mixing Stellmann Components

Part A and B MUST be mixed with an electrical mixer. Do not mix by shaking or manual stirring. This will not get a proper mix and can cause quality issues, such as partial curing, poor chemical and mechanical resistance, etc.

Mixing Ratio: 5 to 1

For every 5 parts of Part A, add 1 part of Part B. To calculate the amount of Part B that is required you can use two calculations:

1. Multiply Part A by 1.2. The result is the total amount you need to reach by adding Part B.
2. Multiply Part A by 0.2. This is the amount of Part B you need to add.

Only mix as much coating as will be immediately required. Once coating has been mixed, pot life is up to 2 hours depending on temperature and humidity.

- Place mixing cup on precision scale and turn on.
- Pour Part A in your mixing cup.
- Add the required amount of Hardener B.
- Thoroughly stir mixture with the small mixing head.

Mixing Example 1

- Part A in your mixing cup = 631 grams
- Multiply 631 x 1.2. Result: 757
- Add Part B until you reach 757 grams
(you have added 126 grams of Hardener B)

Mixing example 2

- Part A in your mixing cup = 250 grams
- Multiply 250 x 0.20. Result: 50
- Add 50 grams of Part B.
(The total mixture will be 300 grams)

Coating A	Part B	Total
100 gr	20 gr	120 gr
250 gr	50 gr	300 gr
600 gr	120 gr	720 gr
2000 gr	400 gr	2400 gr

Closing Part B

Prior to closing Part B, make sure to remove any residue from the lid/cap. Use a slightly wet cloth to remove the residue and then dry with a clean dry cloth. If residue is not removed, it will crystallise, making it impossible to remove the lid/cap the next time.

Dilution Rates

Aqualine PU PRO does not require the application of a separate primer. Two layers must be applied. The first coat is diluted with water so it can penetrate the substrate. This creates an excellent base for the second coat to adhere onto. A third layer is optional (for increased durability).

Prime Coat

Dilute your first coat with 15-20% of water by weight (mixture of part A and Part B) for new applications. For renovations (surfaces previously applied with Aqualine PU PRO) dilute first “primer” layer with 0-10% of water. Dilute the second layer with 0-10% of water.

Mix ratio: 5-1. Part A = 5 and Part B is 1.

Pot-Life: up to 2 hours depending on temperature and humidity. Do not diluted mixed material that thickens.

Mixing Example Prime Coat

Pour 1000 grams (1kg) of Part A into your mixing pail. Use the following formula to calculate how much Part B required.

Formula: $A \times 0.2 \rightarrow$ Example Calculation: $1000 \times 0.2 = 200$.

Thus, 200 grams of Part B needs to be added to Part A. Alternatively, multiply Part A by 1.2. The result shows the total amount of Part A and Part B combined. Using the above example, $1.2 \times 1000 = 1200$. So, add part B until 1200 is reached.

Adding Water

Add 20 up to 25% of water. The calculation will be similar as above. Multiply the mixture total of Part A and Part B by 0.2 or 0.25. The value shown on your calculator is the amount of water that needs to be added to the mixture.

Mixing Example

From the example above, we have a mixture of Part A and B of 1200 grams. Now we add 20% of water. Thus, $1200 \times 0.2 = 240$ grams. Thus, you need to add 240 grams of water to your mixture.

Slowly stir in the water with your medium mixer without power. Then, start mixing in the water with the electric mixer at low speed. Make sure the water is thoroughly mixed in.

Finish Coat

Mix your finish coat according to the 5-1 mixing ratio as previously explained. Only mix as much coating as will be immediately required.

Non-Slip Particles

Only add the Stellmann Non-Slip particles to the finish coat.

- P3 Particles: Add up to 3% by weight to the mixture of Part A and B.
- P4 Particles: Add up to 2.5% by weight to the mixture of Part A and B.
- P5 Particles: Add up to 2.0% by weight to the mixture of Part A and B.

Example: You mixed 2400 grams of Part A (2000 grams) and Part B (400 grams). You want to get a P3 non-slip finish.

Formula: $0.03 \times 2400 = 72$ grams. Add 72 grams of the P3 particles to the mixture.

IMPORTANT: Do not add more than 3% of the Stellmann Non-Slip particles to the mixture. Adding more particles will not increase the slip-rating.

Dilution

Dilute the finish coat mixture by 0 to 5% of water.

Renovations

When recoating an Aqualine PU PRO coated floor, use the following dilutions (after mixing)

- Primer Layer: 10%
- Finish Coat: 5 to 10% - See non-slip mixing above.

Application

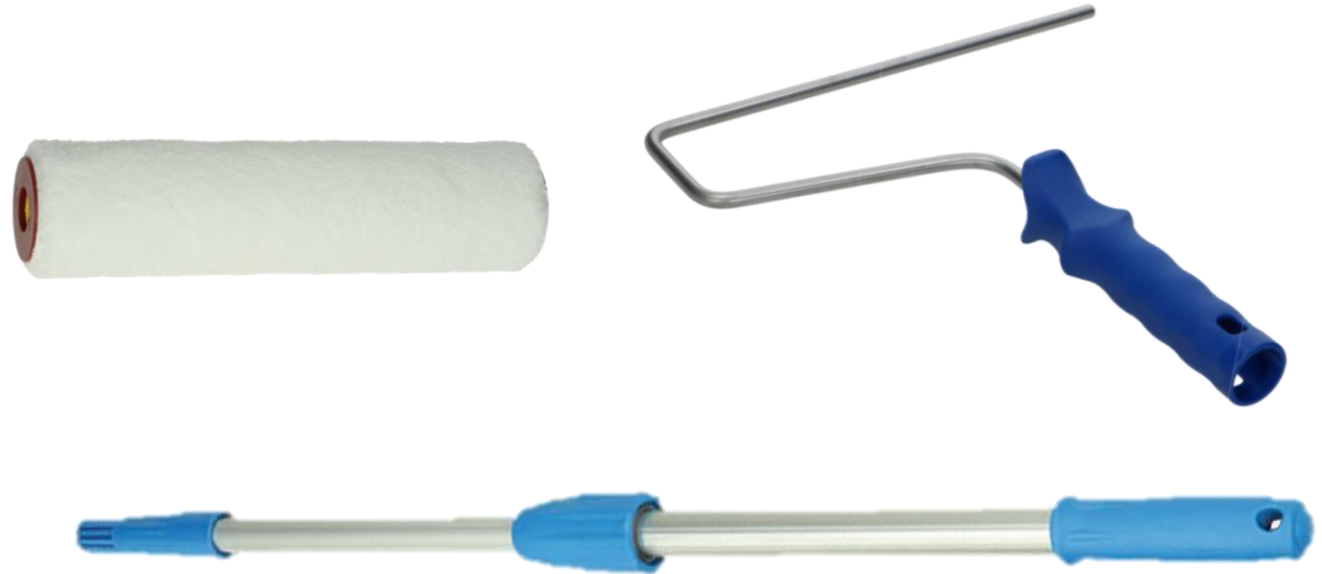
The finish coat needs to be applied evenly. Apply in sections in a straight line and always finish in the same direction (away from the applicator). **Do not use W or N shaped movements or cross-wise movements.** Avoid double layers.

Rollers and Paint Tray

Use the Stellmann PRO rollers to apply Aqualine PU PRO. This allows optimal distribution of the coating and non-slip particles. No guarantee on the slip-rating can be provided when other rollers are used. Use an appropriate paint tray.

Roller sizes

- 10cm - 25cm
- 36cm



Stellmann PRO Rollers and extension pole



UniPro Paint tray and mesh grid for up to 460mm

Roller Application

Access our online installation support files for application videos. Apply an even coat in sections. Apply in a straight line and always finish in the same direction (away from the applicator). Do not roll back into areas that are curing to avoid buildup of the non-slip particles.

Do not apply a thick layer. A wet film thickness above approx. 150µm can cause “CO2-bubbles” in the coating.

NOTE: AQUA Floorline becomes darker when curing. Therefore, you will slowly see the coating turning darker. Seeing slight colour changed during the application process is normal. Stellmann Aqualine PU Pro needs to cure for 24 hours for normal foot traffic. Full chemical cure: 7 days. Clean up with water directly after use. See SDS for further instructions.



Tips:

- Avoid a “dry roller”.
- Avoid N or W patterns as doing so will result in a poor finish
- Always finish in the same direction (away from yourself)
- Keep stirring the coating mixture throughout the application process to make sure the non-slip particles are distributed evenly throughout the coating mixture.

Curing Time

Surface is trafficable for light traffic after 24 hours of curing at room temperature. After applying the coating, it is necessary to allow a minimum of 7 days for complete curing. During this time, it is not advisable to use the chemicals commonly used for cleaning and disinfection or to subject the floor to heavy mechanical and pressure loads.

Daily Maintenance

Make sure to handover the Stellmann Technical Advice and Maintenance Instructions to the customer. Do not use buffing pads or other abrasive cleaning methods. Do not use harsh chemicals. See maintenance instructions for full disclosure.

Remove stones/grit or other particle contaminants with a vacuum cleaner or broom. It is best to use a professional vacuum cleaner with a soft brush attachment. Removing fine particles from the floor surface prevents scratches and damage to the floor. If you plan to move heavy machinery or furniture in the room, it is necessary to thoroughly remove dust and hard grains to prevent scratches during movement. If aggressive/erosive chemicals are used in the facility, they should be removed immediately if spilled.

Weekly maintenance

Perform thorough cleaning 1-2 times a week, depending on usage and floor load. The cleaning can be done mechanically (with soft rotating brushes at low speed) or manually. Avoid using hard/abrasive brushes, steel wool, and extremely abrasive cleaners.

Removing Heavy Soiling

First, thoroughly vacuum or sweep the soiled area of the floor. The cleaning can be carried out with professional machines (with soft rotating brushes at low speed) or manually. Repeat the process if necessary. During cleaning, change the heavily soiled solution to prevent dirt from spreading.

Disinfectants

Disinfectant must be used according to the manufacturer's instructions and must comply to our Technical Advice & Maintenance instructions. If the type of disinfectant is changed, a test should be conducted on a small floor area to detect any possible adverse effects in time. Additionally, sample areas should be prepared in advance to exclude surface irritations.

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