# **Technical Information #22**



## STAUF PERMA-FLEX Indoor Epoxy Floor Coating System

In order to create a floor coating using the STAUF Perma-Flex system there are three steps:

## Step 1: Create uniform sub floor

## Preparation:

Prior to leveling, remove any loose debris and remove any preexisting grease, wax, oil and other organic contaminants by using a commercial cleaner. Make sure any paint, adhesive, flooring, sealer or other residues are well bonded; if not, sand or grind entire floor to remove these anti-adherents. Prepare cracks and dynamic joints as described in Technical Information #19. Tape off all areas before proceeding. Any open doorways need to be bridged with foil tape, aluminum profile or fast setting silicone. Prime wet sub floors with VPU-155. ULC-500 is a two-component urethane leveling compound that will form an even surface by itself and can be raked or troweled to achieve the desired product thickness. In order to achieve a sub floor that is flat and uniform in color, spread ULC-500 Universal Leveling compound over the entire area.



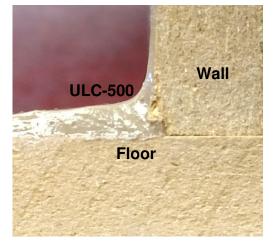
#### Mixing:

Make sure pails were stored between 50°F and 80°F for at least 12 hours prior to mixing. Pour the entire bottle of hardener into the pail with the leveling compound. Mix the two components for at least 2 minutes using an electric drill and mixing paddle (STAUF XMP17) with no more than 300 rpm to avoid

air entrapment. Add one bottle of Color-Fast Tint (STAUF XCFn) to the pail and mix again until a uniform color is achieved. Make sure to mix along the sides and bottom of the pail.

## **Application:**

One gallon of mixed product will cover up to 50 SF @ 1/32" thickness using STAUF XBL11 notches blades with STAUF XTH22 blade holder. It can be applied at any thickness. This product can be applied to the bottom portion of walls to create an easy to clean corner by pulling the product up the wall with a flat trowel and letting it flow down by itself. Be careful not to pull too much up the wall and have it push under your tape. Always work the wall first; after about 15 min pull away from the wall with rake or trowel being careful to not leave excess



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material. After about 15-30 min roll the entire floor with a spiked roller (STAUF XSR18 spike roller on STAUF XRF18 roller frame) to prevent air bubbles. You will need to wear spiked shoes when rolling with spike roller. Always use a clean spiked roller. It is always best to clean roller with acetone immediately when finished. Then brush with a stiff brush to completely clean roller. Let the leveling compound cure completely (about 4-8 hours) before proceeding to the next step.

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## Step 2: Tint your sub floor

#### Preparation:

Before proceeding, make sure to fix any problem areas. You may want to use a grinder to sand out any rough spots. It is best to sand the floor with 120 grit sand paper(start with high grit and work your way down until smooth) to smooth entire surface. You will periodically need to replace sand paper or brush the dust buildup off the paper. This can be done with a buffer, pad driver attachment and hook and loop sand paper. Once completed, sweep, vacuum and tack the floor with water to make sure there is no dust left on surface. Always tack until completely clean. The next step is to put the wear surface on your floor. Before mixing product, make sure all doorways and other openings are prepared to prevent epoxy from going too far.



#### Mixing:

Make sure pails were stored between 50°F and 70°F for at least 12 hours prior to mixing. Start by draining the hardener of the STAUF CCI-600 Epoxy Indoor Base Coat into the resin by piercing all the way through plastic disc in center of lid and the bottom of the upper container using a long screwdriver or similar tool. Let the hardener flow into the lower part of the bucket until empty. Open the ring and remove the upper container. Mix the two components for at least 2 minutes using an electric drill and mixing paddle (STAUF XMP17) with no more than 300 rpm to avoid air entrapment. This paddle will not create a vortex to pull in air when mixing. Add one bottle of Color-Fast Tint (STAUF XCFn) to the pail and mix again until a uniform color is achieved. Make sure to mix along the sides and bottom of the pail. Always mix on top of cardboard or drop cloth. Once done mixing, have an empty bucket available to put your mixing paddle into before using again.

#### Installation:

Empty entire pail onto floor immediately to avoid heating up and drying in the pail. This product can be rolled onto the wall portion previously covered with ULC-500 with a small foam roller. Spread epoxy coating evenly using a notched trowel (STAUF XBL11 notched blade with STAUF XTH22 blade holder). After about 30-60 min roll with a spiked roller (STAUF XSR18 spike roller on STAUF XRF18 roller frame) to prevent air bubbles. You will need to wear spiked shoes when rolling with spike roller. One gallon should cover no more than 70 SF. It can be applied at any thickness, but color will look patchy if applied too thin. In doorways, do not flood these areas with epoxy. Gently work epoxy up to doorways. Flakes of various colors can be used at this point of installation to provide more color to the floor. You can broadcast them as light or as heavy as you prefer. Be sure to wear your spiked shoes while doing this. Let the epoxy coating cure completely (about 12-18 hours) before proceeding to the next step.

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## Step 3: Make floor slip-resistant

### Preparation:

Start by removing tape or silicone in open doorways and along walls. Then grind off the edge of epoxy to prevent sharp areas. You may want to tape off doorways to make sure final coat is as straight as possible. Before proceeding, make sure to fix any problem areas. You may want to use a grinder to sand out any rough spots. It is also best to use a buffer, pad driver and 120 grit sand paper or screen to go over the hardened epoxy before proceeding. You will periodically need to replace sand paper or brush the dust buildup off the paper. Clean the floor by sweeping, vacuuming and tacking with water to make sure no dust is left on surface. The last step is to put a thin layer of epoxy with texturing compound (STAUF XTCx) over the tinted layer.



#### Mixing:

Make sure pails were stored between 50°F and 70°F for at least 12 hours prior to mixing. Drain the hardener of the STAUF CCI-610 Epoxy Indoor Top Coat as described above. Again, add the pre-measured texturing compound (STAUF XTCx) and mix all components as described above. Only use colorant in top coat if not flakes were used in previous coat.

## Installation:

Pour mixture into a roller pan (STAUF XRT18), working quickly to spread epoxy coating evenly using a foam roller (STAUF XFR18 foam roller on STAUF XRF18 roller frame). Do not pour directly on the floor with this application. Roll one direction then immediately roll opposite direction to prevent any skipped areas while being careful not to leave any puddles. This layer works best when applied in a thin coat. The texturing compound will sink into epoxy if coating is spread too thick. Work guickly to prevent epoxy from hardening in pail. A 2.5 gallon pail should cover approx. 750 SF or 300 SF per gallon. The required slip resistance might not be achieved if spread out further. Ensure proper spread rate by marking off a 750 SF area per 2-1/2 gallon pail. Back roll entire area after about 15-30 min with foam roller. Let the epoxy coating cure completely (about 12-18 hours) before allowing foot traffic on the floor. Wait at least 3 days before allowing rolling loads on the floor, and at least 10 days for vehicles or heavy machinery.

Note: Installations where air and/or slab temperature is below 50 °F will result in prolonged drying times (up to twice as long as normal). Never install products when slab and/or air temperature is below 32°F or in condensating environments. None of the products should come in contact with water during the drying process. They will react by creating bubbles and/or discoloration.

Visit the Stauf web site for more information or call Stauf Technical Services at 901.820.0007.

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