



DANCER CONCRETE DESIGN

## NEW CONCRETE POURS POLISHED CONCRETE FLOORS OR EPOXY FLOORS SYSTEMS

The correct placement of the concrete slab is of extreme importance for us to provide our client with a great finished surface. The following are guidelines to pouring new concrete for a Dancer Concrete Design installed floor. Finishing procedures should be consistent.

### THE MIX

- To help control moisture migration and vapor emission problems on interior concrete floors, a proper commercially specified vapor barrier must be placed before the concrete is poured. This is a standard for all warranty claims.
- An additive to remove moisture in cured concrete such as “Barrier One” or “Concure” has shown no adverse effects on floors that will be polished and is recommended for slabs that will be epoxy-coated. Any warranties or claims resulting from moisture would be carried by the manufacturer of the admixture. Do not apply any curing compounds to the floor if using an additive like this.
- Fibers in concrete are not recommended for our StrongTread Polish – Modern finish; if fibers are used, we recommend choosing our StrongTread Polish – Classic or Deep finish with a grout coat. Read more on our blog about [Fibers in Concrete](#).
- Pozzolans, or cement replacements, may also affect the ability to stain the concrete. Pozzolan load should be under 10% of total cement content.

### POURING – PLACEMENT – FINISHING

- Concrete is to be placed, floated, and smoothed per ACI guidelines. The surface should be power-troweled smooth until there are no ridges, trowel markings, or textured spots are left on the surface to attain the desired finish. Some burn marks are acceptable and favored rather than ridges.
- The edges of the slab and around drains should be finished to the same flatness and standards as the rest of the slab. Finishers should be cautious to not leave any ridges or textured spots on the surface.
- For concrete that will be polished: Form control joints using an early-entry power saw using a dry-cut blade. Attach a vacuum to the saw to remove saw cut residue. The early-entry saw will minimize out-of-joint cracking due to delayed sawing, but the residue must be removed and not allowed to accumulate below the skid plate, or the concrete will be discolored when cured.
- Keep the water to cement ratio low. Overwatered concrete can “pop” the surface of the concrete over time.
- Any blemishes left in the concrete as it is being placed and through the finishing and curing process may show in the finished floor. These include boot prints, power trowel marks, blanket marks, etc.

### CURING

- Acrylic curing compounds should not be used on the concrete as this will need to be removed before any of our processes – which requires more time – and subsequently more money.
- A wet cure method will allow the concrete to gain the required strength. If this is not available we recommend a clear, water-dissipating curing agent, such as WR Meadows 1100-Clear or another compatible product.
- Concrete naturally shrinks as it cures. This can cause cracking, map cracking, or curling of the slab. It can



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also result in height differences between the slab and column pads. These considerations must be communicated by the placement contractor and owner, for expectations and any additional work required to grind down curled slabs or crack repairs. The additional work to correct these items can be performed by Dancer Concrete Design but is not budgeted in our proposal unless specifically itemized. Different aggregate sizes should be expected in these areas.

- When pouring in colder climates, blankets are sometimes used by the placement contractor. Blankets will leave curing marks on the surface. If these are used in a minimally processed concrete floor, the marks will stay. Some options exist to remove these marks by grinding deeper into the surface. An on-site sample can confirm this.

### STAINS OR DYES

- A rich Portland cement content is integral for a good stain reaction. A five or six bag concrete mix is ideal. This is enough cement for thorough reaction and produces a floor that will be around 4,000 psi.
- When pouring in colder weather or needing a fast setting mix, only a non-chloride accelerator should be used. Calcium accelerators should not be used as this can affect the stain's color.
- If the concrete pouring will take multiple days, or the stain applied in different times or applications, the client should be informed and understand that the stain will look different from each pour/application.
- Placing items on the concrete surface before the slab has had time to cure can result in ghosting and discoloration, which cannot be fixed by our polishing or staining processes.

### EPOXY

- For standard epoxy flooring installations to begin, the relative humidity in the concrete must be below 80 RH. These readings are taken by Dancer Concrete Design using Wagner RH Meters. All base epoxy floor installations must be below 80RH or use an appropriate Moisture Mitigation system below epoxy flooring.
- For official ASTM standard testing, a 3rd party should be brought in and the installation can proceed per their recommendation. The owner or General Contractor is responsible for all costs associated with testing.
- Moisture mitigation systems can be installed for additional cost and increase floor warranty to 5 year.

### PROTECTING DURING CONSTRUCTION

- Marks left by curing blankets and/or building materials may ghost or shadow in the finished floor.
- The concrete needs to fully hydrate and reach its required strength before our work begins. The work on new concrete can typically take place 3-4 weeks after initial concrete placement. If you have trench patching as part of your remodel project, please contact your Project Leader. On some installs we may do a pre-grind 5 days after the pour.
- If the new floor is to be used during the curing period, some extra precautions must be taken. This may include installation of a protective barrier or informing other trades to care for the concrete. One way to let other trades know about the floor staining is to hang signs around the job-site informing others that the concrete will be the finished floor.
- Oil will always leave permanent stains on a finished concrete floor. Any lifts should be inspected daily for



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leaks and if leaks are found the equipment should be repaired or removed from the jobsite. Tires should also be inspected for rocks, screws, or other debris that can cause scratches or divots in the concrete surface.

- If concrete will be covered during the curing process, we recommend using a heavy-duty construction grade cardboard, like Ram Board, taped together with a breathable seam tape. Follow manufacturers instructions for installation.
- Any spills should be cleaned up from the surface immediately, even if floor protection material is used. Any soiled floor protection should be replaced as needed.
- Do not allow any pipe cutting operations to be completed in areas that will receive polished concrete flooring.

### PLANNING WELL

- Due to the nature of various concrete placement companies and standards of work, some proposed systems may not be available if proper pouring and finishing is neglected.
- The joint filler manufacturer requires 60-90 days from the pour and 7 days of temperature controlled environment before filling control joints. This prevents the joint filler from cracking when slab shrinkage occurs. This is typically not available on most installations and cracking along control joints is normal and can be repaired once the floor is acclimated at additional cost – unless noted.
- Efflorescence is mineral salt deposits that have been brought to the surface with water. The water evaporates and leaves behind a mineral residue of salt. Our polishing and densification process reduces this from happening, but this may appear in recently acclimated spaces. If a proper vapor barrier was used this will go away in time with routine cleaning. Efflorescence may cause a dulling of the floor or disintegration of the finish coat. More information on efflorescence can be found here: [Moisture and its Effect on Polished Concrete Finishes](#)