

FLOORCARE USA

HIGH-PERFORMANCE CONCRETE SPECIALISTS

CONCRETE SLAB FINISHING INSTRUCTIONS FOR COLORATION SYSTEMS

Acid Stain and Topical Dye/Stain Systems on new concrete slabs require a specific base concrete finish that is conducive for proper color deposit. The following instructions should be followed in order to achieve a smooth and flat, yet porous finish.

NOTE: These instructions apply only for coloration and finishes to be applied to existing or new concrete slabs. They do not apply to Overlay or Resurfacing Systems.

A. Project Conditions

1. Environmental Conditions: Maintain an ambient temperature of between 50 and 90 degrees Fahrenheit during application and at least 45 hours after application.
2. Protection: Precautions shall be taken to avoid damage or contamination of any surface near the work zone.
3. Do not apply during inclement weather or when forecasted conditions will not permit compliance with manufacturer's printed instructions.
4. Provide mechanical ventilation during and after application to dissipate fumes if natural ventilation is insufficient.

B. Concrete Mix

1. Use one brand of concrete throughout the project unless otherwise acceptable by the architect. Multiple sourcing may impact the consistency of color throughout the floor.
2. Fly ash content should be kept to a minimum as it will have an adverse effect on the color reaction.
3. Do not use fine or coarse aggregates which contain spalling-causing deleterious substances.
4. Locate construction joints so as to not impair the strength and appearance of the structure but in a way to minimize or eliminate cracking from slab movement.
5. Fiber reinforcement should not be used.

C. Placing Concrete Slabs

1. Bring the concrete slab to a correct level with a straight edge and use a vibratory strike off. After screeding, consolidate and level the concrete slab by using a Bull Float or Darbie to smooth the surface free of humps or hollows. Do not disturb the slab surface prior to beginning finishing operations.
2. Power driven trowels (Steel Trowel Machines) may be used; however take care not to "Over Trowel" or "Burn Out" the concrete slab. Follow ACI 302 guidelines for 3 consecutive passes of a class 5 floor. Concrete finishers should lightly trowel the surface to a flat, consistent level and leave minimal trowel marks. Eliminate any boot prints or unnatural imprints in the surface. Make sure to stop troweling before the concrete slab turns from an even grey to a blackened color... do not burnish the slab. Do not add water or foreign material to surface upon finishing. As an additional precaution an onsite representative or foreman of the selected concrete finishers should contact your approved Professional to review the requirements for the above finish.
3. After the concrete has been finished, do not store objects on the surface for at least 7 days after the pour as it will cause discoloration.
4. Do not wet cure concrete. L&M Cure is a recommended curing aid.
5. Water to cementitious material ratio, (W/Cm), should not exceed .50.
6. Proper curing environment and conditions must be adhered to.

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D. Flat Work Requirements

1. New Concrete
 - A. Confirm Slab Requirements as outlined in Division 3 Section cast In Place Concrete:
 - A.1 Minimum of 3,500 – 4,500 psi at 28 days.
 - A.2 Confirm slab has overall floor flatness rating of at least Ff 50.
 - A.3 Confirm slab has overall local flatness rating of at least Ff 35.
 - A.4 Confirm slab has floor levelness rating of at least Fl 35.
 - A.5 If fine aggregate finish with minimum aggregate has been specified confirm concrete was vibrated and was thoroughly floated and tamped.
 - B. Identify and rectify any conditions and/or concerns that will affect final finish. Do not begin installation until substrates have been properly prepared unless otherwise in writing agreed upon between installer and architect.

E. Protection

1. Protect the concrete slab from damage by any onsite trades and construction equipment. Protection should include the use of a breathable protection, such as 2-ply overlapping craft paper. Cover the entire area to receive the Coloration System. In areas that require overhead work, Plywood or OSB Chip Board should be placed on top of the paper for additional protection. Site superintendents should pay close attention to the protection during construction to repair any rips or tears. To prevent stains and spills, do not allow food or drinks into space during the duration of the project. ***All onsite trades should be notified that the concrete floor in place is the finished floor.**
2. Ensure that the newly placed slab has ample cure time over a 30 day period before applying the Acid Stain or Topical Dye System. The sub grade must be well-drained and not subject to hydrostatic pressure.

F. General Notes

1. It is important to remember that unlike paints which are opaque in nature, Acid Stain and Topical Dye coloration systems are translucent and will only emphasize any variations, markings, or imperfections in the concrete slab. Consistency of placing, finishing, curing and protection of the new concrete slab will result in an attractive and captivating floor system.
2. Your approved professional will work together with all customers, contractors and related subcontractor trades to ensure that the custom designed architectural and engineered flooring system lives up to all expectations.

Important Information:

**Decorative Concrete Systems are hand crafted on site by trained applicators using a variety of techniques and artisan craftsmanship. They are not pre-manufactured flooring systems therefore every system installation is unique and will present its own set of installation variables.

Similar in effect to natural stone products, the final outcome of these systems are designed to and may give an assortment of colors, swirls, mottling effects, blemishes, and occasional hairline cracks, natural to and desired when choosing these types of hand crafted systems.

Acid stain and Topical Dye coloration systems create custom translucent color effects, and are not designed to, and will not hide surface discoloration, blemishes, impressions, cracks, markings or other construction variables. Variables that occur during installation are due to each unique working environment. (i.e. lighting, temperature, airflow, humidity, and, existing floor condition.)

Decorative Concrete Surfaces are striking in appearance and add to the artistic features of modern sculptures, floors, walls and accessories.

The total system design must be considered to ensure safe, long lasting, trouble free performance. The installer of these systems does not take responsibility to determine and/or specify systems as stated above. Function, material compatibility, adequate physical characteristics, and maintenance, are the responsibility of the selected architect, designer and ultimately the end user.

It is the end users' responsibility to determine the suitability of these systems for their particular application and their own use.