



Water Based Concrete Stain

AREA PREPARATION

Be sure to mask or cover all areas that are not intended to be stained including but not limited to door frames, doors, walls and windows.

SURFACE PREPARATION

The surface preparation phase of "Staining a Concrete Floor" should be viewed as the *most important*. Proper floor preparation results in the stains longevity, minimizes potential failures and creates the best environment for an aesthetically pleasing work of art. In short, the more detail and time allotted to this phase of the project will dramatically affect the appearance and durability of the finished floor.

The surface must be free of all foreign materials that would inhibit the absorption of Bon's color concrete stain. Foreign materials include, but are not limited to grease, dirt, glue, previous coatings, and sealer. Bon's color stain can be applied to previously sealed surfaces. The process is described in "Previously Sealed Surfaces".

Exterior

1. Open the pores of the surface via power washing. Use a parallel overlapping line pattern to insure a properly cleaned surface.
2. For driveways or areas that have grease, tire marks, etc, use a rotary floor machine with a grit brush in conjunction with a biodegradable cleaner such as citric acid.
3. Liberally dampen surface, apply biodegradable cleaner solution and machine scrub with floor buffer. The floor must be kept wet to achieve optimal cleaning. Lastly, power wash with parallel overlapping line pattern. Power wash = 0 degree rotating nozzle with 12,000 work units (Work Units = Gallons per Minute x PSI)

Interior

Machine Scrub:

1. Use a rotary floor machine with a grit brush in conjunction with a biodegradable cleaner such as citric acid.
2. Liberally dampen surface, apply biodegradable cleaning solution and machine scrub with floor buffer. The cleaner must be kept wet to achieve optimal cleaning.
3. Use a carpet extraction machine to flush the floor with water to remove all residue and cleaner. Continue to flush the floor until rinse water is clear. Wet/Dry vacuum or wet mopping can remove residue. When mopping use clean rinse water after each pass until rinse water remains clear.

Grinding:

1. 1st Pass = 40 grit metal bonded diamonds if the surface requires (e.g. adhesives, profile irregularities)
2. 2nd Pass = 150 grit metal bonded diamonds.
3. Remove excess dust with vacuum.
4. Remove remaining dust with dry mop or wet mop until floor is completely free of foreign materials and dust.

TEST PATCH

Once surface is clean and dry, create a test patch using Bon's color stain. If the test patch adhesion is satisfactory and desired color is achieved, the surface is ready for application. An alternative surface preparation test is to place droplets of water onto the intended application surface.

Note: If the water droplets absorb into the surface, the surface is prepared for test patch. If the water droplets remain on the surface, the foreign material that is inhibiting penetration must be removed from the surface before application.

TAPE TEST

A tape test will help determine the effectiveness of the cleaning process. After the floor has been thoroughly scrubbed, rinsed and allowed to dry; apply several 1 foot strips of high quality 2" packaging tape to various locations on the floor. Aggressively press the tape onto the floor with the heel of your hand. Fold one end of the tape into itself and pull it off of the floor as vigorously as possible. Examine the adhesive layer in a bright light looking for residue that was pulled from the floor. Little to no dust or other foreign particles should be visible. Areas with visible foreign material need to be scrubbed and rinsed again until the surface is free of these contaminants.

DILUTION/MIXING

Bon's color stain is supplied as a concentrate. The recommended dilution ratio is 1 part concentrate to 4 parts distilled, deionized or reverse osmosis water. Concentrate will result in ready to use stain by simply stirring mixture.

Note: "Hard" water has an adverse affect on Bon's color stain. Therefore, in order to achieve maximum service distilled, deionized or reverse osmosis water is recommended.

THINNING

The recommended dilution ratio for Bon's color stain can be found in Dilution/Mixing section. Increased transparency as well as a lighter color shade can be achieved by increasing the dilution ratio (amount of water to concentrate). The dilution ratio should not surpass 1 part concentrate to 8 parts distilled, deionized or reverse osmosis water.

HIGH HIDE

Decreasing the dilution ratio (e.g. 1 part concentrate to 1 part water) will increase hide or opacity. This allows the applicator to cover stains and blemishes as well as achieve uniformity on different surfaces. A natural variegated appearance is still achieved at lower dilution rates.

Note: As dilution ratio increases, the amount of vehicle solids (glue) decreases resulting in a less durable stain.

APPLICATION DIRECTIONS

| | Material | Surface | Ambient | Humidity |
|---------|----------|---------|---------|----------|
| Best | 60-90°F | 65-85°F | 65-90°F | 10-60% |
| Minimum | 45°F | 45°F | 45°F | 0% |
| Maximum | 105°F | 110°F | 110°F | 80% |

APPLICATION METHODS

To achieve a natural variegated or modeled appearance, Bon's color stain should be applied by creating a mist via an airless sprayer, High Volume Low Pressure (HVLP) sprayer, production gun, pump sprayer or trigger spray bottle. The variegation is the result of the specific gravities of the pigments as well as the absorption rate of the application surface. Roller application methods force absorption resulting in a more monotone or painted appearance.

BRUSH/SEA SPONGE APPLICATIONS

For application areas where coverage and product control is warranted, apply Bon's Color Stain with a sea sponge or traditional bristle brush (e.g. corners and walls)

SECONDARY/HIGHLIGHT COLOR

To achieve increase color depth or mottled appearance. A secondary or highlight coat can be applied as soon as initial Bon's color stain is dry to the touch (approximately 15 minutes).

Note: All Bon's water based color stains are compatible, thus can be mixed, sprayed simultaneously and layered to achieve a desired appearance.

PREVIOUSLY SEALED SURFACES

After cleaning the previously sealed surface, apply Bon's color stain via an airless sprayer or HVLP (this application will atomize the stain) to a small, out of the way test section of the sealed surface. Allow the stain to dry (15-20 minutes). Test for adhesion by running your hand over the stained surface. If you are unable to rub the stain off, the stain has achieved adhesion. Apply Bon's color stain to the remaining areas. Allow a 24 hour drying period before applying a clear sealer over the stain.

DRY TIMES (OPTIMAL)

| Temperature | Relative Humidity | Dry to the Touch | Final Cure/ Sealer Coat |
|-------------|-------------------|------------------|-------------------------|
| 70°F | 30% | 15-20 min | 24 hours recommended |

Note: High humidity and lower temperatures will lengthen dry and cure times. Dry time can be shortened by increasing temperature and air flow. Proper adhesion will develop with 24 hour cure time.

CLEAN UP

Immediately clean up work area and tools with water while stains are still wet.

GENERIC TYPE

Waterborne acrylic

GENERAL PROPERTIES

A decorative stain for concrete surfaces. Bon's color stain is water submersible, alkali, weather and UV light resistant. These stains require a top coat and are compatible with solvent-based, water-based, single and two component products, including but not limited to urethanes, acrylics and epoxy clear sealers. Bon's color stain is not compatible with Methyl Methacrylate or penetrating (sodium silicate) sealers.

- Compatible with neutralized acid-based stains
- Compatible with overlays, as a topical stain and as integral color
- May be applied over previously sealed surface
- Low odor
- Fast air dry
- Overnight Deliverable - no red label
- Low VOC
- Interior and exterior application

RECOMMENDED USE

A user-friendly stain for concrete floors and other porous substrates. May be applied over sealed surfaces (refer to Application Instructions).

NOT RECOMMENDED FOR

Non-porous substrates (e.g. metal, resin, fiberglass) when submerged in water or exposed to severe weather conditions.

COLORS

Seven different colors give the applicator a wide range of affects that they may obtain, by mixing colors together or changing the dilution rates. All the colors in the water based concrete stain line are totally compatible with one another in both the dry and wet stage.

Semi-transparent - can be used for applications that range from high hide to transparent variegated appearance.

Transparent - remain transparent even with multiple coats – appear very similar to acid stains.

Colors shown in our printed literature and at www.bontool.com approximate the final color, after a coat of sealer has been applied. Many factors outside of our control affect the final outcome of the project. Please consider mix ratio, hydration, cement, aggregate, cure time and other factors upon review of the final project. It is recommended to perform a test pour.

COLOR RETENTION

All the colors formulated for Bon's color stain have been specially selected to produce the most durable lightfast and alkali resistant coatings available:

| Pigment | Alkali Resistance | Ultra-violet light Resistance |
|----------------|-------------------|-------------------------------|
| Carbon Black | Excellent | Excellent |
| Titanium White | Excellent | Excellent |
| Iron Oxide | Excellent | Excellent |
| Phthalo Blue | Excellent | Excellent |
| Phthalo Green | Excellent | Excellent |

TYPICAL CHEMICAL RETENTION

| Exposure | Concentrate | Dilute (10%) |
|-----------|-------------|--------------|
| Acids | Good | Excellent |
| Alkalis | Excellent | Excellent |
| Solvents | | |
| Aliphatic | Good | Good |
| Aromatic | Good | Good |
| Ketones | Poor | Poor |
| Salt | Excellent | Excellent |
| Water | Excellent | Excellent |

TABER ABRASION RESISTANCE TEST - ASTM D 4060-95

-performed by independent laboratory, Architectural Testing, Inc.

Abrasion resistance values of Bon's color stain are comparable to acid-based stain.

Citric acid Cleaner was used in surface preparation for concrete plaque samples.

Full report of Architectural Testing, Inc.'s Taber Abrasion Resistance Test is available upon request.

SPECIFICATION DATA - SOLIDS CONTENT

| | By Volume |
|---------------------------------|-----------|
| Bon's color stain (as supplied) | 30% ± 2% |

