



WCP, Inc.
COLOR CONCRETE USAGE WAVIER

By working together, we plan to deliver the best experience when ordering color concrete to your jobsite. WCP, Inc. will ensure proper batch weights are achieved and slump arrives + or – one inch of design slump for optimum performance. Contractor assumes all responsibility for finished product. By signing this wavier you fully understand the responsibilities and requirements to have a successful color project. WCP, Inc. assume no responsibility for the product if no defect is noted in mix weights versus design and proper slump delivery. **If we deliver a product out of specification it is the customer's responsibility to reject the load and ask for a new one. Failure to follow these guidelines will remove any liability from WCP, Inc. for the finished product.**

Integrally Colored Concrete

Integrally colored concrete uses natural or synthetically manufactured iron oxide pigments. Available in powder, liquid and granular form, the smaller iron oxide pigment particles cover the larger cement particles when added to any cement-based mix to create color that is uniform throughout the concrete. Iron oxide comes in four colors: black, light red, dark red, and yellow. The blending together of these basic colors produces a variety of other colors. Cobalt and chromium oxide are used for blue and green pigments and are only available by special order with minimum quantities. Integrally colored concrete will not fade over time, but will change due to efflorescence, pollution, dirt, and traffic. Typically, a good cleaning and sealing will bring back the original color.

Water Cement Ratio is key to a successful color concrete pour

Wilsonville Concrete Products Inc. will deliver the ready-mix product as specified within water cement ratio specification. Once the contractor takes ownership of the load of colored concrete. The liability transfer to the contractor for performance.

Key factors to handling colored concrete?

1. Ask for WCP to provide an QC technician to monitor job site. This is an additional fee.
2. Water/Cement Ratio is the most important part of consistency in color. Maintain Water Cement Ratio consistency throughout the finished product is crucial. Added water permanently changes concrete/typically lightening the final color.
3. Use a surface evaporative control agent instead of water to slow the hydration of concrete in hot windy conditions, or if the concrete surface is drying out.

4. When deciding what color to purchase use color samples not color charts or computer displays. Charts are usually glossed, and the concrete product will not match.
5. Do not use Calcium Chloride in concrete it will cause discoloration, we don't use any.
6. Different types of form work can influence surface color. A change in or type of brand of a form release agent can also change concrete color.
7. Eliminate trowel burning. See NRMCA CIP 23 – Discoloration
8. All orders must be placed through our Central Dispatch Team. WCP will work to accommodate scheduling, however schedules change throughout the day and loading delays may occur.
9. All orders containing color should always be scheduled to be completed on the same day, as our Source Aggregates, Cementitious, and or Admixtures can and will change without notice. Changing any of the above Source Materials will change the shade of colored concrete and will not match. Pouring on multiple days will cause variation in color. We will not guarantee color consistency over several pours on the same jobsite.

10. WCP will NOT guarantee color matching if any of the above-mentioned SOP's are deviated in any way and will not be held liable.

- When pouring color consistency and proper finishing techniques are a must. Refer to ASTM, NRMCA CIP 14 & 23 and Euclid Chemicals SS119 "Increte Color-crete Best Practices for Granular integral color". I acknowledge receipt of this safety overview and that I have reviewed and accept the enclosed WCP, Inc. terms and conditions of sale.

Do's

- Order a quality concrete mix with the appropriate slump for proper placement required. If higher slumps are required or requested an addition of a mid-range or high range water reducer should be requested to maintain proper w/cm ratios.
- Colored concrete should have a max w/cm ratio of .45-.50.
- Place concrete on a well-drained, dampened sub-grade that has adequate and uniform load-bearing characteristics.
- Grade the sub-grade so that the concrete is of uniform thickness and properly sloped for drainage.
- Place, consolidate and screed the concrete, then float it to the specified grade, flatness, and levelness.
- Texture all surfaces adequately and uniformly for slip resistance.
- Finish all surfaces within reasonably the same time after placement.
- Finish the edges first and do all hand- finishing in the same direction.
- Protect the concrete surface from rapid evaporation of bleed water between finishing steps with a dehydration prevention spray
- Use an approved curing compound for proper curing of concrete as soon as the final finish is completed
- Protect the freshly placed concrete from freezing for the first 72 hours.

Don'ts

- Don't use calcium chloride accelerators to achieve fast concrete set time.
- Don't order concrete in less than 3 yd³ (2 m³) increments. Full color consistency is not guaranteed.
- Don't place concrete on a sub-grade that is not thoroughly compacted and dampened.
- Don't place concrete over freestanding water or muddy, frozen, or soft spots.
- Don't exceed design slump tolerance using water or add water after a portion of the load has been discharged, or retemper concrete that has started to set. Refer to NRMCA CIP 26.

- Don't sprinkle water or otherwise add water to the surface during finishing operations. Refer to NRMCA CIP 14.
- Don't use inconsistent finishing practices.
- Don't over-trowel (burn or burnish) the concrete surface.
- Don't use plastic sheeting or water curing methods to cure colored concrete.
- Don't allow items to stand on concrete during the curing process
- Don't pour color in multiple pours. One continuous pour is recommended.

By signing below, I acknowledge receipt of this overview and that I have reviewed and accept the enclosed WCP, Inc. terms and conditions of sale on behalf of myself and all employees of the company.

Company Name: _____

Address of Delivery: _____

Color Chosen: _____

Name (Print): _____

Name (Signature): _____ Date: _____