

Uni-Mix[®] LIQUID Coloring System Guide



Butterfield Color[®] | *Engineered Concrete Performance* | 625 W Illinois Ave, Aurora, IL 60506 | www.butterfieldcolor.com | 800-282-3388

FOR PROFESSIONAL USE ONLY. Read all applicable and current product information for your project: Technical Data Sheet (TDS), Color Chart, Installation Guide, Safety Data Sheet (SDS). All information is available for download online at www.butterfieldcolor.com and at point of purchase.

MasterFormat™ Guide Specifications, and Butterfield Color® Architectural Details and Specifications are available for the specifier/designer. All information is available for download online at www.butterfieldcolor.com and at point of purchase.

Description: Uni-Mix[®] Liquid Integral Concrete Colorant is an admixture for integrally coloring ready mixed concrete during batching. It is a blend of non-fading synthetic iron oxides, which produce uniform, streak free colors in concrete. Uni-Mix[®] Liquid Integral Concrete Colorant mixes freely, quickly and evenly without additional water, maintaining the strength and freeze/thaw resistance of the cured concrete. Uni-Mix[®] Liquid Integral Concrete Colorant is suitable for all concrete flatwork installations such as interior floors and exterior hardscapes, as well as precast, tilt-up and cast-in-place applications. For truly unique and creative concrete installations, use of Uni-Mix[®] Liquid Integral Concrete Colorant can be combined with other Butterfield Color[®] products: Perma-Cast[®] Shake-on Color Hardener, Perma-Cast[®] Sierra Stain™, Elements™ Transparent Concrete Stain, Butterfield Color[®] Stamping Tools, Perma-Cast[®] Antiquing Release, Butterfield Color[®] Clear Liquid Release and Perma-Tique™ Antiquing Agent.

Uni-Mix[®] Liquid Integral Concrete Colorant is composed of synthetic iron oxide pigments dispersed and suspended in a pH adjusted water-based solution. It is a high solid, thixotropic dispersion containing between 60% and 70% total pigment loading. Uni-Mix[®] Liquid Integral Concrete Colorant can be added to ready mixed concrete at the batch plant or on site with pre-measured pails made with a Butterfield Color[®] Uni-Mix[®] Liquid Dispensing System. Uni-Mix[®] Liquid Integral Concrete Colorant is available in 48 standard colors. Butterfield Color[®] Uni-Mix[®] Liquid Dispensing Systems also allow for the formulation of numerous custom colors and colors that compare with other manufacturers.

Limitations: Uni-Mix[®] Liquid Integral Concrete Colorant should be kept from freezing. Frozen material requires additional remixing before product can be used.

Packaging: Uni-Mix[®] Liquid Integral Concrete Colorant is available in 4000 lb. (275 gal.) totes when using a Butterfield Color[®] Uni-Mix[®] Liquid Dispensing System or pre-measured into 1, 2, or 3.5 gal. pails.

Mix Design: Concrete should have a minimum of 5-sacks of cement per cubic yard of concrete. If cement substitutes such as fly ash or blast-furnace slag are utilized, that mix should be used for all adjacent pours as it will have a slight effect on the color. Concrete must be free of reactive ingredients, and poured at a 4-inch slump or less. The water/cement ratio needs to be consistent throughout the entire project. During cold weather, when an accelerator is needed, choose a non-chloride accelerator. Never use calcium chloride. All concrete subject to freeze/thaw cycles should be properly air entrained (typically 5%-7%), as prescribed by the mix design. It is important that you discuss your project with your Ready Mix supplier. The same cement, sand, and aggregates must be utilized throughout the project.

Batching: The maximum loading of Uni-Mix[®] Liquid Integral Concrete Colorant should not exceed 10% by weight of the total cement and cement substitutes in the mix. The mixer drum should be in good condition with little or no buildup on fins. 1/4 of the mixer volume is the minimum amount of concrete that should be batched to develop a consistent mix. Spin the drum in reverse until the load backs up to the top. Pour or dispense Uni-Mix[®] Liquid Integral Concrete Colorant directly onto the concrete. Once added, ensure that any colorant retained on the fins is thoroughly mixed into the load.

Installing Colored Concrete Flatwork:

Sub-base: Sub-base should be carefully prepared and compacted using an approved gravel fill such as CA-6. Sub-base must be free of frost with no standing water.

Placing and Finishing: Once placing has begun, do not randomly add water to the mixer drum or to the surface of the colored concrete. Once discharged, the specified slump must be maintained throughout the installation, particularly for adjacent pours of concrete. Never retemper concrete that has started to set. After placing and initial bull floating, no further finishing should be performed until bleed water has evaporated. Texture all surfaces adequately and uniformly for slip resistance.

Curing and Sealing: Never use plastic sheeting or water spray to cure colored concrete as it will mottle and streak the surface. Use liquid, membrane-forming compounds such as Clear Guard[®] Cure and Seal, Clear Guard[®] PRO 350[®] Cure and Seal, Clear Guard[®] H₂O Water-Based Cure and Seal, or Clear Guard[®] H₂O Wet Look Water-Based Sealer. **Read Technical Data Sheets before using these products. All information is available for download online at www.butterfield-color.com and at point of purchase. Cured and sealed surfaces may become slippery when wet if the concrete surface is not adequately finished for slip resistance. Incorporate a slip resistant additive into the sealer for additional slip resistance. Interior floors may be maintained with a slip resistant wax.**

Maintenance: Periodically inspect surfaces sealed with Clear Guard[®] Cure and Seal, Clear Guard[®] PRO 350[®] Cure and Seal, Clear Guard[®] H₂O Water-Based Cure and Seal, or Clear Guard[®] H₂O Wet Look Water-Based Sealer for wear or damage, and reseat as needed. Avoid exposing sealed surfaces to strong solvents and corrosives. Clean motor oil and gasoline spills as soon as possible. Avoid dragging, dropping or placing sharp objects on sealed surfaces. Prior to resealing, surfaces must be thoroughly cleaned, dry, and free from residual cleaning products or any condition that will affect adhesion. Do not over apply sealer. A slip resistant additive may be utilized when resealing colored concrete.

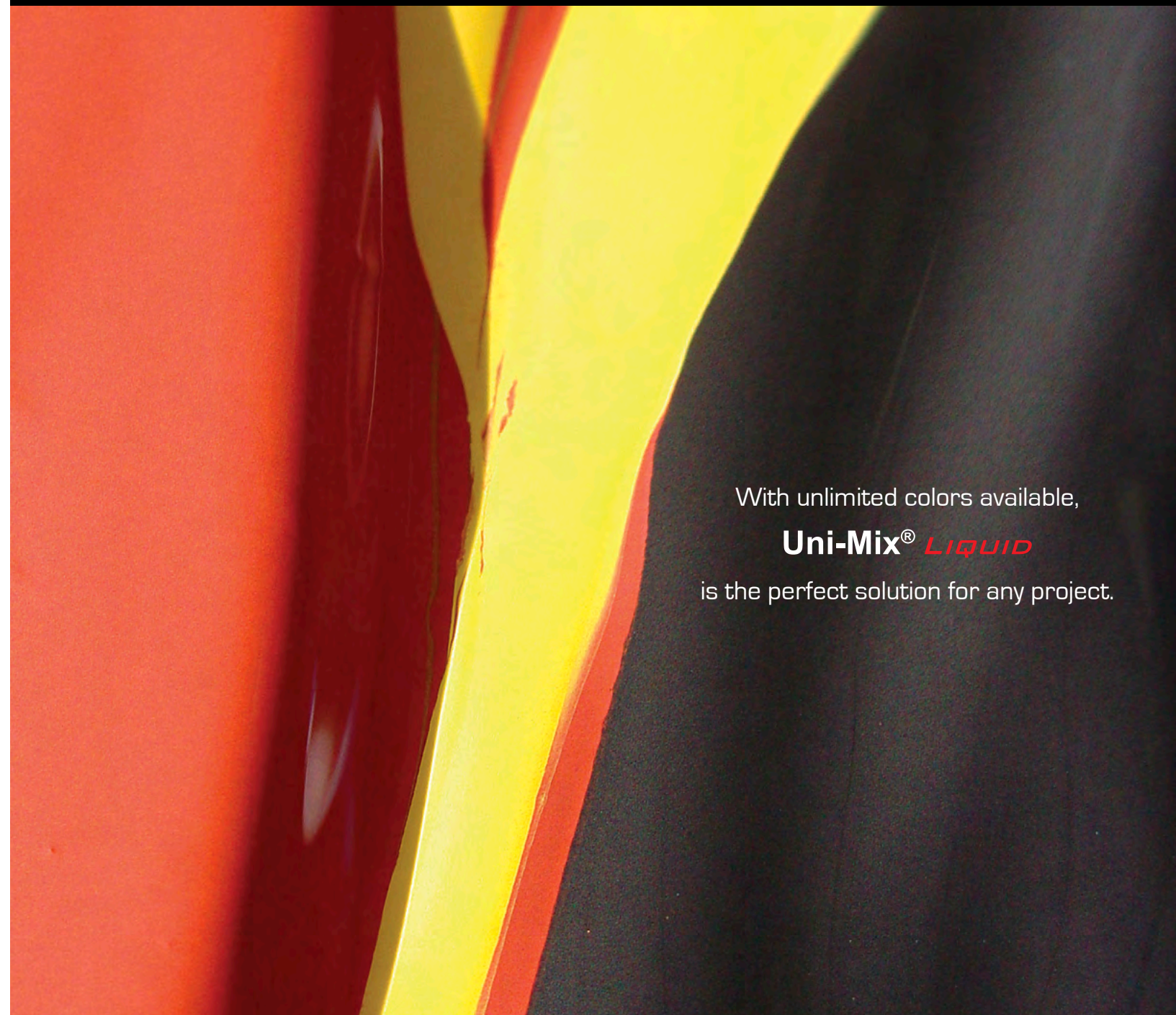
Quality Control: Cast a job site sample at least 21 days prior to the installation for approval of color and finish. All materials, tools, and techniques that will be utilized on the actual job should be incorporated into the mock-up. Consistent batching, pouring, finishing, curing and sealing techniques, will ensure color uniformity.

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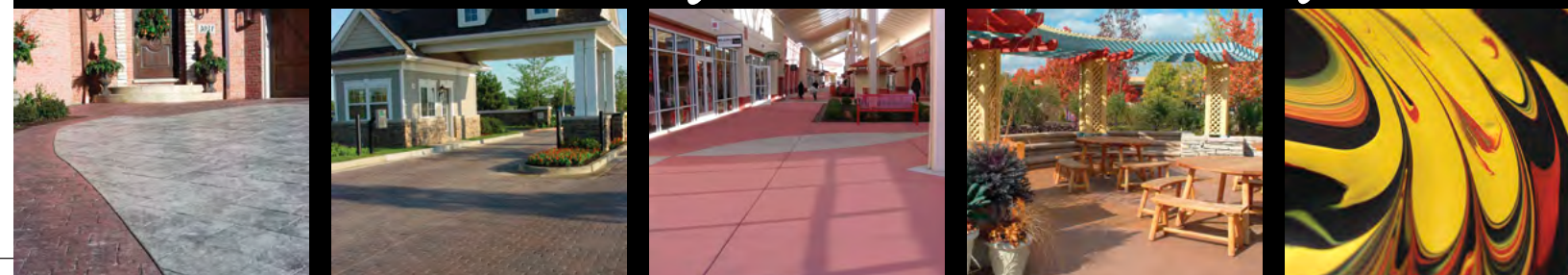


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With unlimited colors available,
Uni-Mix[®] LIQUID
is the perfect solution for any project.

Engineered Concrete Performance



Uni-Mix® LIQUID Integral Concrete Colors

Colors shown on this chart represent formulations using medium gray cement and sealed with solvent based Clear Guard® Cure and Seal. Variations can be expected due to differences in cement, aggregates and method of application. Many things can affect the appearance of color. For best color matching results, a representative job site sample should be cast using materials and finishing techniques that will be used on the project.

Color is an integral part of what we see every day. From the subtle earthtones of sand, wheat, and sage, to the bright colors of a sunset or mountain range, combinations of colors can be used to set the mood and theme. Color decisions are made with two factors in mind - specific design needs and how well the color will endure year after year.

Color and durability are the very essence of Butterfield Color®. With over 40 years field experience in architectural colored concrete, we offer a line of concrete color additives that are technically superior and meet the needs of the architectural specifier as well as the concrete finisher.

 L2474 Weathered Terra Cotta	 L2272 Hampshire Red	 L5229 D.O.T. Red	 L3296 Brick Red
 L0427 Bermuda Sands	 L0645 Paradiso	 L1561 Dusty Rose	 L3259 Cayenne
 L0345 Driftwood	 L2693 Sautillo Tile	 L0569 Coral Buff	 L1788 Mocha Brown
 L0861 Savannah	 L1723 Honeycomb	 L3446 Golden Amarillo	 L1447 Santa Fe Buff
 L0448 Putty	 L0618 River Delta	 L0678 Khaki	 L0895 Clam Shell
 L2592 Bella Brown	 L3371 Flaxseed	 L2511 Ripe Fig	 L2464 Ancho Chili

 L0857 Desert Hue	 L1085 Sandstone	 L0911 Millstone	 L0850 Autumn Oak
 L0815 Pampas Grass	 L0903 Sonoran Tan	 L0961 Harvest Wheat	 L0413 Buckskin
 L0644 Sunset Beige	 L1798 Muted Copper	 L1066 Georgia Clay	 L3363 Sienna
 L3429 Citrine	 L0262 Salt Marsh Gray	 L1296 Earthen	 L3421 Walnut
 L0652 Weathered Teak	 L1828 Smokey Quartz	 L2550 Soapstone	 L1736 Sorrell
 L0322 Ash	 L0665 Gull Gray	 L2296 Charcoal	 L4615 Deep Charcoal