1. Description: Uni-Mix® Integral Concrete Colorant is packaged for 5-sacks or 6-sacks of cement per cubic yard. It can also be custom packaged for any cement content or metric mix design. The color chart approximates the color of cured and sealed concrete designed with a medium gray Portland cement. Local materials, finishing techniques, texture, and method of curing and sealing will affect the final color. Custom color requests are welcome at Butterfield Color®. Designing theme colors and precise color matching is available upon request.

2.1 SHELF LIFE: Indefinite, when stored in original, unopened containers, in dry storage.

3. Mix Design: Concrete should have a minimum of 5-sacks of cement per cubic yard of concrete. Exterior concrete requiring freeze/thaw resistance should have a minimum of 6-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 color. Concrete must be free of reactive ingredients, and poured at a 4 in. (102 mm) slump or less. The water/cement ratio needs to be consistent throughout the entire project. In hot weather, the use of a retarder should be considered. During cold weather, when an accelerator is needed, choose a non-chloride accelerator. Never use calcium chloride. Uni-Mix® Integral Concrete Colorant is compatible with most chemical admixtures and fibers. All concrete subject to freeze/thaw cycles should be properly air entrained (typically 5%-7%) as prescribed by the mix design.

4. Batching: The mixer drum should be in adequate and uniformly for slip resistance. After placing and initial bull floating, no further finishing should be performed until the bleed water has dissipated, after which final finishing can take place. Clos- ing with a steel trowel can diminish the effectiveness of air entrainment at the surface and should be avoided where freeze/thaw is a concern. Texture all surfaces adequately and uniformly form slip resistance. For exterior installations, apply a broom finish or swirl finish using a float.
When broom finishing concrete, shake off any water that may be left on broom after rinsing, as it may cause discoloration. Finishing techniques must be consistent. Differing finishing techniques will change the appearance of the color.

5.3. CONTROL JOINTS: Random cracking of a concrete slab is minimized by the timely and correct placement of control joints. Control joints may be introduced during concrete placement with a groover, or after the concrete has reached initial set by power sawing. Each method should be evaluated prior to installation and should be incorporated into the pre-job mock-up. Refer to the following The American Concrete Institute publications for additional information: Guide for Concrete Floor and Slab Construction (ACI 302.1R), Joints in Concrete Construction (ACI 224.3R).

6. 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, Color Guard™ Cure and Seal, Color 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.butterfieldcolor.com and at point of purchase. Do not over apply sealer. A slip resistant additive must be utilized when resealing colored concrete.

8. Installing Vertical Colored Concrete: Unless a special form liner has been specified, use a clean epoxy coated or urethane coated plywood form. Use non-leaking snap-tie cones. Clean and then tape or seal all joints to prevent leakage. Any bleed water leaking along joints may discolor wall. Choose a release agent that does not discolor concrete. Do not use metal form ties or chairs within 1.5 in. (38 mm) from the surface.

Keep the slump consistent form load-to-load. Do not add water after a portion of the load has been discharged. Never retemper concrete that has started to set. Cast all walls in a continuous pour to their full height between engineered horizontal joints. When possible, use both external and internal vibrators. Vibrate the concrete in lifts up to two feet or less. Do not touch the interior face of form with vibrator. Perform vibration long enough to consolidate concrete and dislodge entrapped air. Do not over vibrate concrete causing segregation of the mix.

Strip all forms when the concrete is the same age. Lightly sandblast all surfaces sufficiently to remove form marks and form release residue. Note: Excessive sandblasting may expose sand and aggregates, substantially changing the color of the finished wall.

9. Quality Control: Cast a job site sample at least 21 days prior to the installation for approval of color and finish. Utilize all materials, tools, and techniques from the actual job in the mock-up. Consistent batching, pouring, finishing, curing, sealing, and preparation techniques, will ensure the uniformity of architectural concrete. Verify adequate wet and dry slip resistance. Discuss maintenance requirements. Site visits by Butterfield Color, Inc. Personnel are for making technical recommendations only and not for supervising or providing quality control. Maintenance requirements should also be discussed.

WARNING: USE WITH ADEQUATE VENTILATION. WHEN DUSTY CONDITIONS OCCUR, USE PROTECTIVE GLASSES, GLOVES AND DUST MASK (NIOSH/MSHA TC 21 APPROVED). IMMEDIATELY AFTER USE WASH ANY AREA OF EXPOSED SKIN. IF CONTACT IS MADE WITH EYES FLUSH THOROUGHLY WITH WATER. DO NOT RUB. MOVE TO FRESH AIR IF INHALED. IF SYMPTOMS DEVELOP OR PERSIST, OR IF INGESTED, SEEK MEDICAL ATTENTION. READ MATERIAL SAFETY DATA SHEET BEFORE HANDLING OR USE. ALL INFORMATION IS AVAILABLE FOR DOWNLOAD ONLINE AT WWW.BUTTERFIELDCOLOR.COM AND AT POINT OF PURCHASE. KEEP OUT OF THE REACH OF CHILDREN.

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Suggested Short Form Specification for Butterfield Color® Uni-Mix® Integral Concrete Colorant:

Add Butterfield Color® Uni-Mix® Integral Concrete Colorant to concrete in proportion required to obtain [_______] color and mix according to manufacturer’s instructions. Maintain mix characteristics for all concrete having finished finish. Concrete shall contain a minimum of five sacks of cement per cubic yard and have a maximum slump of 4 inches. Do not use calcium chloride. Place and finish concrete according to industry standards. [Optional: Apply Butterfield Color® Perma-Cast® Antiquing Release according to manufacturer’s instructions using [_______] color and imprint using Butterfield Color® Stamping Tools using [_______] pattern according to manufacturer’s instructions.] Cure and seal concrete with 2 coats Butterfield Color® Clear Guard® Cure and Seal with slip-resistant additive according to manufacturer’s instructions.

Macro stunning background for your business.