

# Butterfield Color® T1000™ Stampable Overlay – Guide Specification

NOTE\*\* This Section is based on systems of

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NOTE\*\* This guide specification is intended to be used by a qualified construction specifier. It should not be used without appropriate modifications.

NOTE\*\* Notes for review by specifier begin with “NOTE\*\*.” Optional text requiring a selection is enclosed within brackets, e.g., “Color shall be [gray] [white].” Items requiring specifier input are indicated by a blank line enclosed within brackets, e.g., “Color: [\_\_\_\_\_].” Delete specifier notes and non-applicable optional text in final specification.

NOTE\*\* Specification Section numbers and Section titles are according to The Construction Specifications Institute MasterFormat™ 1995 edition and indicated within brackets for MasterFormat™ 2004 edition.

## GUIDE SPECIFICATION

NOTE \*\* Retain one Section number below and revise footer Section number to match.

SECTION 02985 [32 01 27]

CEMENTITIOUS STAMPABLE OVERLAY

SECTION 03365 [03 53 50]

CEMENTITIOUS STAMPABLE OVERLAY

SECTION 09690 [09 61 50]

CEMENTITIOUS STAMPABLE OVERLAY

## PART 1 - GENERAL

### 1.1 SUMMARY

#### A. Section Includes:

NOTE\*\* Delete optional text below for exterior concrete pavement or interior concrete floor that is not required.

1. Cementitious stampable overlays for concrete [pavement] [floor].
2. Cementitious stampable overlays for stained decorative concrete [pavement] [floor].

B. Related Sections:

NOTE\*\* Delete subparagraphs below that are not required; add others as required.

1. [Division 2 Section "Cement Concrete Pavement"] [Division 32 Section "Concrete Paving"] for cast-in-place concrete pavement with cementitious stampable overlays.
2. [Division 3 Section "Chemically Stained Concrete"] [Division 9 Section "Concrete Floor Stain"] for staining cementitious stampable overlays.
3. Division 3 Section "Cast-in-Place Concrete" for interior concrete with cementitious stampable overlays.

1.2 SUBMITTALS

- A. Submit according to Conditions of the Contract and Division 1 Specification Sections.
- B. Product Data: For each product indicated.
- C. Samples for Initial Selection: Manufacturer's color charts.
- D. Sample Panels: [2 by 2 feet (610 by 610 mm)] [\_\_\_\_\_], to demonstrate finish, color, and texture of cementitious stampable overlay.
- E. Qualification Data: For Installer and manufacturer specified in Quality Assurance Article, including names and addresses of completed projects, architects, and owners.

1.3 QUALITY ASSURANCE

- A. Installer Qualifications: Two year's experience with projects of similar scope and quality.

NOTE \*\* Delete paragraph above or below.

- B. Installer Qualifications: Trained or approved by Manufacturer of cementitious stampable overlay systems.
- C. Manufacturer's Qualifications: Three year's experience manufacturing products required.
- D. Source Limitations: Obtain products from same source throughout Project.
- E. Field Samples: Locate at site and obtain approval before start of final work. Field samples shall be minimum [4 by 4 feet (1.2 by 1.2 m)] [\_\_\_\_\_].
  1. Demonstrate range of finishes and workmanship, including sealing procedures.
  2. Approved field samples set quality standards for comparison with remaining work.
  3. [Remove field samples when directed.] [Approved field samples may become part of the completed Work if undisturbed at completion of Project.]

NOTE \*\* Delete paragraph below if preinstallation conference is not required.

- F. Preinstallation Conference: Conduct conference at site to comply with requirements of Division 1 Section "Project Meetings."

#### 1.4 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials in original packaging with labels intact.
- B. Store in clean, dry and protected location, according to manufacturer's requirements.

#### 1.5 PROJECT CONDITIONS

- A. Environmental Requirements: Comply with cementitious stampable overlay manufacturer's instructions.
  - 1. Do not apply overlay cementitious topping if air temperature and concrete substrate temperature are not between 45 to 85 deg F before and during installation.
  - 2. In hot weather, install cementitious stampable overlay in early morning or when surfaces are shaded.
  - 3. Keep bagged products out of sunlight. Use cool water; do not use water from hot watering hoses.
  - 4. Protect cementitious stampable overlay from rain for 24 hours.
  - 5. In windy weather, protect adjacent construction from over-spray during application of sealers.

### PART 2 - PRODUCTS

#### 2.1 CEMENTITIOUS STAMPABLE OVERLAY MATERIALS

- A. Cementitious Stampable Overlay: Polymer-modified cementitious overlay designed for texturing stable, non-moving concrete [floors] [pavements].
  - 1. Product: Butterfield Color® T1000™ Stampable Overlay.
- B. Primer: Butterfield Color® T1000™ Primer.
- C. Water: Potable.

NOTE \*\*Delete Article below if cementitious stampable overlay will not be integrally colored.

#### 2.2 INTEGRALLY-COLORED OVERLAY MATERIALS

- A. Integral Concrete Colorant: ASTM C 979, factory-measured powdered mix, consisting of nonfading finely ground synthetic mineral-oxide coloring pigments and water reducing wetting agent.
  - 1. Product: Butterfield Color® T1000™ Color Pack.
  - 2. Colors: As selected by [Architect] [\_\_\_\_\_].

NOTE \*\* Delete subparagraph above if colors are selected and indicate Butterfield Color® T1000™ Color Pack number in subparagraph below. Add a schedule if multiple colors are required. Delete subparagraph below if colors are not selected.

- 3. Color: Butterfield Color® T1000™ Color Pack U[\_\_\_\_\_]CP.

NOTE \*\*Delete Article below if cementitious stampable overlay will not be stained.

## 2.3 STAIN MATERIALS

A. Penetrating Reactive Stain: As specified in Division 3 Section “Chemically Stained Concrete.”

NOTE \*\*Delete Article below if cementitious stampable overlay will not be stamped.

## 2.4 IMPRINTING TOOLS

- A. Stamp Mats: Semi-rigid polyurethane mats with projected texture and ridged underside capable of imprinting texture and joint patterns to plastic cementitious stampable overlay. Include texture skins matching stamp mat textures for texturing areas that cannot be reached with stamping mats.
1. Manufacturer: Butterfield Color®.
  2. Pattern: As selected by [Architect] [\_\_\_\_\_].

NOTE \*\* Delete subparagraph above if patterns are selected and indicate pattern number in subparagraph below. Add a schedule if multiple patterns are required. Delete subparagraph below if patterns are not selected.

3. Pattern: BST [\_\_\_\_\_].

- B. Accessory Stamp Tools: Aluminum detailing tools capable of imprinting joints and dressing stamped joints of plastic cementitious stampable overlay.
1. Product: Butterfield Color® Stamp Tools.

NOTE \*\*Delete Article below if cementitious stampable overlay will not be stamped.

## 2.5 RELEASE AGENTS

- A. Liquid Release Agent: Clear, evaporating formulation that facilitates release of stamp mats and texture skins from cementitious stampable overlay.
1. Product: Butterfield Color® Perma-Cast® Clear Liquid Release.
- B. Pigmented-Powder Antiquing Release Agent: Factory-packaged, non-fading finely-ground, streak free, colored powder that facilitates release of stamps and texture skins from cementitious stampable overlay and imparts a secondary accent color.
1. Product: Butterfield Color® Perma-Cast® Antiquing Release.
  2. Colors: As selected by [Architect] [\_\_\_\_\_].

NOTE \*\*Delete subparagraph above if colors are selected and indicate Perma-Cast® Antiquing Release color numbers in subparagraph below. Add a schedule if multiple colors are required. Delete subparagraph below if colors are not selected.

3. Color: Butterfield Color® Perma-Cast® Antiquing Release R-[\_\_\_\_\_].

## 2.6 SEALING MATERIALS

- A. Clear, Solvent-Borne, Membrane-Forming Sealing Compound: ASTM C 309, non-yellowing, VOC-compliant, high-gloss, clear liquid.
  - 1. Product: Butterfield Color® Clear-Guard™ Cure & Seal.

NOTE \*\* Delete paragraph below if matte finish for sealer is not required.

- B. Flatten Paste: Manufacturer's standard product designed to reduce sealer gloss finish to matte finish.
  - 1. Product: Butterfield Color® Flatten Paste.

NOTE \*\* Delete paragraph below if slip-resistive additive is not required for interior concrete.

- C. Slip-Resistive Additive: Finely graded aggregate or polymer additive designed to add to sealer for slip-resistant surface.

## 2.7 MIXING

- A. Mixing Cementitious Stampable Overlay: Mix materials in accurate proportions and according to manufacturer's instructions.
  - 1. Bulk Mixing: For machine mixing of cementitious stampable overlay, use a paddle mortar mixer.

NOTE \*\*Delete paragraph below if cementitious stampable overlay will not be integrally colored.

- B. Add Butterfield Color® T1000™ Color Pack to water and then mix with cementitious stampable overlay according to manufacturer's instructions.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine substrate for compliance with requirements.
- B. Do not proceed with cementitious stampable overlay installation until unacceptable conditions are corrected.

### 3.2 SUBSTRATE PREPARATION

- A. Map out locations of existing control joints before installation of cementitious stampable overlay.
- B. Thoroughly clean substrate using high-pressure water or trisodium phosphate (TSP) and water with a scrub brush, then rinse thoroughly. Remove potential bond breakers, such as grease, oil, silicone, paint, sealant, curing and sealing compounds, drywall taping compound, etc.

- C. For painted, sealed, or overly slick hard-troweled concrete substrates, mechanically abrade surfaces by sanding, scarifying, or shot blasting to allow for proper bonding.
- D. Remove weak, delaminated, or unsound concrete substrates.

NOTE\*\* Delete paragraph below if concrete does not require patching.

- E. Patching: Fill chips, pits, and cracks prior to application of cementitious stampable overlay with a slurry of Butterfield Color® T1000™ Stampable Overlay and water in lifts up to 1/2 inch. Fill depths not exceeding one inch with a slurry of Butterfield Color® T1000™ Fine Overlay, water, and clean, dry pea gravel or small aggregate.
- F. Allow surfaces to dry thoroughly prior to application of primer.

### 3.3 PRIMING SUBSTRATES

- A. Apply an even coat of concrete primer from two directions, free of holidays, to prepared substrates using a paint roller or sprayer. Protect adjacent surfaces from overspray or splash.
- B. Allow concrete primer to dry tack free prior to application of cementitious stampable overlay. If primed substrates become wet, reapply primer.
- C. Prevent contamination of primed surfaces by dirt or other deleterious materials or conditions.
- D. Apply cementitious stampable overlay within 24 hours of concrete primer application.

### 3.4 TROWEL-APPLIED CEMENTITIOUS STAMPABLE OVERLAY APPLICATION

NOTE \*\*Delete optional text below if cementitious stampable overlay will not be stamped.

- A. Trowel Application: Distribute cementitious stampable overlay by trowel or gauge rake to a uniform thickness of 1/4 to 1/2 inch[, as required to match depth of stamp mat grout lines]. Trowel to a smooth surface. For large areas, use a fresno. Do not over trowel.
- B. Maintain a wet edge when installing cementitious stampable overlay to avoid cold joints.
- C. Do not overwork material with trowel or fresno. Do not add water to surface once application has begun. Do not retemper cementitious stampable overlay.
- D. Clean tools frequently to avoid build up of overlay materials.
- E. When installation requires multiple pours over a common concrete substrate area, protect adjacent prepared concrete substrates from release agents.

NOTE\*\* Delete Article below if cementitious stampable overlay is indoor, stamped, or stained, or is not required.

### 3.5 BROOM FINISH

- A. Apply fine broom finish to cementitious stampable overlay immediately following initial troweling of material. Clean broom by hand after each pass.

NOTE \*\*Delete Article below if cementitious stampable overlay will not be stamped.

### 3.6 STAMPING

- A. Stamp overlay surfaces according to manufacturer's instructions. Plan stamp layout prior to application of stamps.
- B. Liquid Release Agent Application: Apply a liberal coat of liquid release agent to cementitious stampable overlay when set sufficiently to achieve a clean impression.
- C. Stamping:
  - 1. Stamp perimeter of pour using texture skins.
  - 2. Accurately align stamp mats in sequence and tamp into cementitious stampable overlay to produce imprint pattern, texture, and depth of imprint, according to manufacturer's instructions. Remove stamps from cementitious stampable overlay immediately.
  - 3. Stamp edges and surfaces unable to be imprinted with stamp mat with texture skins.
  - 4. Use stamp tools to imprint grout lines at edges and surfaces unable to be imprinted with stamp mats.

### 3.7 JOINTS

- A. Recut existing control joints before cracking occurs, generally within 12 to 24 hours after placement at 70 deg F.

NOTE\*\* Delete Article below if antiquing color is not required for stamped overlay or if cementitious stampable overlay is stained.

### 3.8 ANTIQUING

- A. Allow cementitious stampable overlay to set for minimum of 24 hours prior to application of antiquing release agent.
- B. Apply thin coat of sealer over cementitious stampable overlay using a pump sprayer. Allow to dry prior to application of antiquing release agent.
- C. Mix antiquing release powder with Butterfield Color® Clear Perma-Cast® Liquid Release according to manufacturer's instructions and shake well in a metal pump sprayer. Maintain constant pressure in sprayer and apply liberally over cementitious stampable overlay to create antiquing look. Apply evenly, avoiding puddles in textured areas and grout lines. Continuously shake sprayer to avoid settling.
- D. Do not walk on sprayed areas nor apply final coat of sealer until antiquing release agent is thoroughly dry.

NOTE \*\*Delete Article below if cementitious stampable overlay will not be stained.

### 3.9 STAINING

- A. Apply stain as specified in [Division 3 Section “Chemically Stained Concrete.”] [Division 9

Section "Concrete Floor Stain."]

NOTE\*\* Delete Article below if cementitious stampable overlay is stained.

3.10 SEALING

- A. Sealer Application: Apply uniformly in continuous operation by sprayer or short nap roller according to manufacturer's instructions. After initial application is dry and tack free, apply a second coat.
1. Do not over apply or apply in a single heavy coat.

NOTE\*\* Delete paragraph above if antiquing release agent is used. Delete paragraph below if antiquing agent is not used.

- B. Sealer Application: Apply final coat of sealer uniformly in continuous operation by sprayer according to manufacturer's instructions.

NOTE \*\* Delete subparagraph below if flatten paste not required for reducing sealer gloss finish to matte finish.

1. Thoroughly mix flatten paste in sealer according to manufacturer's instructions. Stir occasionally to maintain uniform distribution of paste.

NOTE \*\* Delete subparagraphs below for interior concrete. For interior applications subject to wetting, consider slip-resistant floor wax over sealer.

2. Thoroughly mix slip-resistant additive in sealer according to manufacturer's instructions. Stir occasionally to maintain uniform distribution of additive.
3. Verify adequacy of slip resistance before opening up surfaces to traffic.

3.11 REPAIRS AND PROTECTION

- A. Repair damaged cementitious stampable overlay according to manufacturer's instructions.
- B. Clean spillage and soiling from adjacent construction according to manufacturer's instructions.
- C. Protect cementitious stampable overlay from damage or deterioration until date of Substantial Completion.

END OF SECTION

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