

GUIDE SPECIFICATION

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SECTION 09610

SPECIAL COLORATION TREATMENT OF CONCRETE FLOORS

Renew by QC

This guide specification has been prepared by QC Construction Products in printed and electronic media, as an aid to specifiers in preparing written construction documents for colored concrete floor slabs using a water-based, non-reactive, non-acrylic colored concrete stain.

Edit entire master to suit project requirements. Modify or add items as necessary. Delete items which are not applicable. Words and sentences within brackets [_____] reflect a choice to be made regarding inclusion or exclusion of a particular item or statement. Where a value, word, or phrase is followed by a bracket, the preferred value, word, or phrase occurs first, with the other choices following inside the brackets. This section may include performance, proprietary and descriptive type specifications. Edit to avoid conflicting requirements.

This guide specification is written around the Construction Specifications Institute (CSI), Section Format standards references to section names and numbers are based on MasterFormat 95.

For specification assistance on specific product applications, please contact our offices above or any of our local product representatives throughout the country. Additional technical information is available in our CSI formatted Product Information Bulletins.

QC Construction Products, reserves the right to modify these guide specifications at any time. Updates to this guide specification will be posted to the manufacturer's web site and/or in printed matter as they occur. QC Construction Products makes no expressed or implied warranties regarding content, errors, or omissions in the information presented.

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Provisions established within the General and Supplementary General Conditions of the Contract, Division 1 - General Requirements, and the Drawings are collectively applicable to this Section.

1.2 SECTION INCLUDES

Edit the "Section Includes" paragraph to briefly describe the content of the section. After editing section, refer back to this paragraph to verify no conflicts occur.

- A. Concrete floor slabs colored using a colored, penetrating stain that is non-reactive.
- B. Surface finishing and sealing.

1.3 QUALITY ASSURANCE

Include quality assurance requirements below which are consistent with the size and scope of the project and extent of work of this section. Only request qualification statements you intend to review, and which are necessary to establish qualifications of the product, manufacturer, or installer.

- A. Perform work in accordance with ACI 301.
- B. Obtain materials from same source throughout.
- C. Work shall be performed by a qualified contractor who is experienced and trained in surface cleaning and preparation of concrete, surface coloring and sealing. Concrete shall be cleaned, prepared and colored using Renew by QC products, and sealed with product by QC Construction Products when appropriate, and by following manufacturer's application guidelines.
- D. Concrete surface shall have no sealers, curing compounds, loose debris, oil, grease, dirt, or coatings that will resist the penetration and bonding of Renew by QC products to the concrete substrate.
- E. All concrete surfaces to receive application of Renew by QC products shall be tested to insure that they have a properly cured and porous surface. If the concrete surface is 'dusty' or otherwise friable, call QC Construction Products Customer Service Department for assistance prior to application of Renew by QC products at 800-453-8213.
- F. Jobsite Conditions:
 - 1. Product shall not be applied if concrete temperature drops below 50 °F or rises above 90 °F. Use an Infra Red Concrete Surface Thermometer to determine concrete temperature.
 - 2. Mask and protect all adjacent surfaces and finishes from damage, staining or defacing from applications.
 - 3. Barricade work area from pedestrian and vehicular traffic once surface preparation begins. Renew by QC stain products can be walked on 4 hours after the final application has fully cured/dried. It can be driven on 48 hours after the final application has fully cured/dried. It can be cleaned (pressure wash) 1 week after the final application has fully cured/dried.

1.4 SUBMITTALS

Include submittal requirements below which are consistent with the scope of the project and extent of work of this section. Only request submittals which are necessary for review of design intent.

Do not request submittals if drawings sufficiently describe the products of this section or if proprietary specifying techniques are used. The review of submittals increases the possibility of unintended variations to drawings.

- A. Submit product data under provisions of Section 01300.
- B. Include data on joint filler, chemical stains, and curing/sealing compounds.
- C. Submit manufacturer's instructions under provisions of Section 01300.
- D. Provide field samples of surface colors and textures specified for architect approval prior to beginning work, 48 x 4- inch in size illustrating paving finishes.

PART 2 PRODUCTS

2.1 PRODUCTS

Renew by QC products are used to enhance the beauty of concrete. Refer to manufacturer's product instructions and usage recommendations. Contact manufacturer for suggested maintenance coatings for periodic renewal of finish. The following is a brief description of the Renew by QC Solid Color Stain product line: Renew by QC Solid Color Stain: Modified-polymer, water-based, non-acid (non-reactive), non-acrylic, penetrating opaque stain that does not change the texture of concrete or increase slip-coefficient of surface. Dries to a matte finish. No volatile organic compounds (VOCs). Renew by QC Solid Color Stain does NOT need to be sealed. Renew by QC Solid Color Stain is compatible with any type of sealer, if necessary. Does NOT need to be removed before future maintenance applications of Renew by QC Solid Color Stain.

Renew by QC Translucent Stain: Modified-polymer, water-based, non-acid (non-reactive), non-acrylic, penetrating transparent stain that does NOT change the texture of concrete or increase slip-coefficient of surface. Dries to a matte finish. No volatile organic compounds (VOCs). Does NOT need to be sealed.

Renew by QC Solid Color Stain is compatible with any type of sealer, if necessary. Does NOT need to be removed before future maintenance applications of *Renew by QC Solid Color Stain*.

Renew by QC Primer: Modified-polymer, water-based, non-acid (non-reactive), non-acrylic, penetrating clear stain that does NOT change the texture of concrete. Dries to a matte finish. No volatile organic compounds (VOCs). Does NOT need to be sealed. *Renew by QC Primer* is compatible with any type of sealer, if necessary. Can be used with abrasive grit on either stained or unstained concrete for a non-glossy, clear appearance and breathable finish. Does not need to be removed before future maintenance applications of *Renew by QC Solid Color Stain*. Can be used as a pre-coat before raw, virgin or integrally colored concrete is stained with *Renew by QC Translucent Stain*. *Renew by QC Primer* is not meant to be used as protective sealer on exterior applications. *Renew by QC Primer* can be applied in layers on interior applications for greater protection.

- A. Pigmented Penetrating Stain: Micronized Pigments suspended in a concrete penetrating, water-based, modified-polymer *Renew by QC* stain products, by QC Construction Products.
 - 1. [Renew by QC Solid Color Stain]
 - 2. [Renew by QC Translucent Stain]
- B. Cleaning and Preparation materials:
 - 1. [QC Con-Clean]
 - 2. [QC Concrete Degreaser and Neutralizer]
 - 3. [QC Floor Cleaner]

QC Sealers are used to protect stained concrete by minimizing the damaging effects of petroleum-based contaminants and overall effects of weathering. Refer to manufacturer's product instructions and usage recommendations. Contact manufacturer for suggested maintenance coatings for periodic renewal of finish. The following is a brief description of QC Sealers recommended for concrete that is stained with Renew by QC Solid Color Stain and other colored concrete surfaces:

QC Solvent Seal 18, QC Solvent Seal 23, QC Solvent Seal 27, QC Ultra Seal, QC Ultra Seal 100 VOC, QC VOC III: Solvent-based (acrylic), non-yellowing, penetrating sealers that protect against dusting, staining, whitening effects, dirt, and industrial chemicals. Creates a protective film on surface. Can be applied in multiple layers. *QC Solvent-Based Sealers* must be removed or stripped before future maintenance applications of *Renew by QC* stain products.

QC Ultra Seal and *QC VOC III* concrete sealers comply with all federal VOC regulations, and regulations for most states. *QC Ultra Seal 100 VOC* concrete sealer complies with all VOC regulations in Arizona and California, and federal VOC regulations in all states.

QC Cemseal, QC PermaSeal, QC VOC 100 WB: Water-based (acrylic), non-yellowing, penetrating sealer that protect against dusting, staining, whitening effects, dirt, and industrial chemicals. Creates a protective film on surface. Can be applied in multiple layers. *QC Water-Based Sealers* do not need to be removed or stripped before future maintenance applications of *Renew by QC* stain products.

QC PermaSeal and *QC Cemseal* concrete sealers comply with all federal VOC regulations, and regulations for most states. *QC VOC 100 WB* concrete sealer complies with all VOC regulations in Arizona and California, and federal VOC regulations in all states.

QC Interior Floor Finish (gloss), *QC Natural Beauty* (matte) are wax-modified, water-based, acrylic top coatings. These finish coatings are designed to provide a cost effective, sacrificial top coat applied over *Renew by QC* in INTERIOR applications.

QC Interior Floor Finish and *QC Natural Beauty* comply with VOC regulations.

- C. Sealing and Finish Coatings:
 - 1. [QC Concrete Sealer] clear, penetrating sealer that provides a protective film and can be used to protect both interior and exterior applications of *Renew by QC* stain products.
 - 2. [QC Interior Floor Finish (gloss) or QC Natural Beauty (matte)] clear, sacrificial top coat, can be used in multiple layers for protecting INTERIOR applications of *Renew by QC*.

D. Maintenance Products:

1. [*QC Interior Floor Finish* (gloss) or *QC Natural Beauty* (matte)] clear, sacrificial top coat, can be used in multiple layers for protecting INTERIOR applications of *Renew by QC* stain products.
2. [*QC Floor Cleaner*] pH neutral concrete cleaner, is used to clean surfaces treated with *Renew by QC* stain products on a routine basis.

PART 3 EXECUTION

3.1 CONCRETE COLORATION

A. Preparation

1. Verify that newly placed concrete has cured at least 28 days and that non-compatible liquid curing materials were not used. On existing older concrete, thoroughly clean floors so that uniform penetration of *Renew by QC* stain products. If membrane forming curing compound was applied, it must be removed per manufacturer's recommendations. Areas to receive *Renew by QC* stain products shall be free of any coatings or films that will resist the penetration of *Renew by QC* stain products.
2. If grease or oil residue is evident, additionally clean the surface using *QC Concrete Degreaser and Neutralizer* to remove any oily residue that will resist the penetration of *Renew by QC* stain products.
3. Thoroughly rinse with clean water to remove all cleaning residue. Surface shall be free of residue from cleaning materials and allowed to dry prior to application of *Renew by QC* stain products.
4. If surface is too dense or polished, profile and etch using *QC Con-Clean* according to application instructions. Rinse and clean with water to remove all residue.
5. Prepare a representative test sample of size sufficient to represent the end product, complete with *QC Sealer*. Allow sample to be reviewed and approved before beginning balance of the work.
6. Protect all surrounding landscaping and adjacent surfaces from over spray or residue run-off. Mask as required.
7. Do not allow tape of any kind to be applied to or to come in contact with the floor, prior to or after colorant has been applied.
8. Before applying *Renew by QC* stain products, ensure that surface temperature of the subject surface is between 50 °F and 95 °F. Surfaces above or below these extremes may cause improper or ineffective penetration and saturation of *Renew by QC* stain products into the substrate.

B. Colorant Application:

1. Divide work area into smaller work sections for proper control of coverage. Plan work area so that concrete wet with colorant is not tread upon.
2. Apply *Renew by QC* stain products using a *Renew by QC Applicator Brush* according to *Renew by QC* Product Information Bulletin. The full Solid Color Stain kit (32 oz., 4-parts) covers 250-400 square feet, in two coats. The sample Solid Color Stain kit (4 oz., 4-parts) covers approximately 45 square feet in two coats. The full Translucent Stain kit (16 oz., 3-parts) covers approximately 300 – 600 square feet, in one coat. The sample Translucent Stain kit (4 oz., 3-parts) covers approximately 75-150 square feet.
3. Allow manufacturer's recommended drying time after application of last coat.
4. Wait a minimum of 24 hours drying time after damp mopping or if applying *QC Sealer*. If there is doubt as to the dryness of floor surface use a wet test or electronic moisture meter to test for presence of moisture.

C. [After concrete has been cleaned and allowed to dry, apply sealer as recommended by manufacturer.]

D. Apply *QC Sealer* in accordance with manufacturer's instructions. Generally, 24 hours.

3.2 PROTECTION

A. Protect stained floors from construction damage until substantial completion.

3.3

MAINTENANCE

- A. Maintain floor at regular intervals per manufacturer's recommendations.

END OF SECTION