

QC CemTint

QUALITY **ARCHITECTURAL** CONCRETE

Product Information Bulletin 15.0507P

QC CEMTINT

Uses and Benefits

- QC CEMTINT is a permanent, penetrating, water-based staining compound designed to provide translucent, marbled hues and tones on gray and colored substrates. The finished color can appear similar to chemically stained surfaces.
- A hydrolyzed, lithium quartz compound, QC CEMTINT works by penetrating and reacting with mineral compounds and/or siliceous materials to create a translucent or marbled appearance on the substrate surface. Because the product penetrates into the pores of the substrate, there is no film or coating to be worn away.
- QC CEMTINT consists of two separately packaged components: 1) a colored pigment pack and 2) a QC CEMTINT liquid pack.
- Once mixed, QC CEMTINT should be used within 14 days. Always mix before using.
- QC CEMTINT may be used on colored or natural concrete, brick, plaster, porous limestone, Mexican tile and gypsum products.
- When coloring concrete, QC CEMTINT is an excellent nontoxic tint base for the following surfaces:
 - Colored, imprinted concrete
 - Color-hardened concrete
 - Surface overlays, such as QC THIN-PAVE* or QC CONCRETE RESURFACER*
 - Colored concrete that has been uncoated or stripped
 - Uncolored concrete that has been uncoated or stripped
 - Interior high-traffic retail or public areas
 - Interior concrete surfaces that will be regularly maintained and recoated
 - Exterior concrete surfaces that will weather naturally
 - Exterior concrete surfaces that will be regularly maintained and recoated
 - Exposed aggregate
- QC CEMTINT creates a permanent, breathable, insoluble surface that can be used for translucent coloring that will preserve the characteristics of a concrete surface.
- QC CEMTINT requires a final sealer topcoat to properly protect and enhance the final color.

Before Any Application

Note: Thorough mixing is required before and during application of this product. Some separation may occur if product is left to stand for periods of time, so it is important to ensure all solids are dispersed in solution before applying QC CEMTINT. Mechanical mixing with a drill mixer is recommended prior to all applications with periodic stirring during use.

- 1. Protect any adjoining areas (windows, doors and fixtures, etc.) from overspray. If allowed to dry on metal or ceramic surfaces, abrasion may be required for removal. QC CEMTINT will not corrode or damage these materials.
- 2. QC CONSTRUCTION PRODUCTS utilizes the International Concrete Repair Institute (ICRI) Concrete Surface Profile (CSP) standards for specifying finished surface roughness prior to applying QC CEMTINT. For proper adhesion, the concrete must be a minimum #1 according to the ICRI CSP chart. Contact the ICRI at www.ICRI.org or QC CONSTRUCTION PRODUCTS for more information on these surface profiles.
- 3. The surface should be clean and dry. If the surface is not completely dry, the product may turn white or hazy. If aggressive moisture movement on interior concrete is suspected, exact moisture movement levels can be measured using a moisture test kit in accordance with ASTM D4263 standards, following the manufacturer's instructions. Moisture measurements of five pounds and below are acceptable. If measurements fall outside of this range, QC CEMTINT should not be applied.

In addition, a pH test should be done, using an appropriate pH pencil and following the manufacturer's instructions. An acceptable pH range is between 8-9. If measurements fall outside of this range, do not proceed. In most cases, applications cannot be completed.

For exterior surfaces, there is no method to effectively test for moisture movement and related problems. It is beneficial to look for visible signs of moisture problems—such as surrounding landscape that has been heavily irrigated, concrete adjoining

steep hillside areas, poor surface drainage of landscape, dark blotchy areas, variegated surface color, etc.

This material is dependent on proper penetration. Any existing curing agents, coatings, sealers, oils, paints, dirt and/or efflorescence will inhibit penetration of QC CEMTINT. Any materials that would prevent penetration must be removed before application. In the case of sealers, cures, and coatings, mechanical removal—such as shot-blasting, sand-blasting or terrazzo-grinding—is advisable. Use QC CONCRETE DEGREASER AND NEUTRALIZER* to help remove grease and oil. Harsh chemicals should never be used to remove any of the materials cited here.

- 4. QC CEMTINT should only be applied to substrates above 50 °F and below 100 °F
- **5.** QC CEMTINT may appear different when applied over concrete patching material than when applied over plain concrete.
- **6.** Apply this product in light, uniform coats with an airless or backpack pump-up sprayer. When using any sprayer, make sure the sprayer is completely clean of solvents and foreign materials, including water. If applying with an airless sprayer, use a tip ranging from 410-811.
- 7. Important Note: Before applying product to new or existing concrete, test QC CEMTINT in an inconspicuous area on the actual surface for desired results. Inconsistencies in job site conditions, base color, surface permeability, concrete mix design, slump, curing methods, finishing practices, and age and condition of concrete in existing slabs may produce variations in the color of the finished product. The translucent effects of this product—considered hallmarks and not defects—will not cover up any variations, inconsistencies, stains or flaws of the concrete in existing slabs or in any substrate. For application questions, contact QC CONSTRUCTION PRODUCTS.
- 8. To alleviate surface tension, use QC CON-CLEAN*. QC CON-CLEAN* is especially useful for surface preparation to break the surface tension and to allow proper penetration of the product. Do not use QC CON-CLEAN* to remove existing curing agents, coatings, sealers, oils, paints, dirt, standing water, efflorescence or other similar material
- **9.** To test the surface (to be stained) for the presence of sealers, curing compounds or release agents, mist the surface with water from a hand-held spray bottle. Potential problem areas will not "wet out" uniformly. Extremely dense or burnished surfaces should be slightly abraded to better accept QC CEMTINT followed by recommended finish sealers. Abrade with 100 grit to 120 grit sanding screen.
- **10.** Be sure the QC CEMTINT color pack is thoroughly mixed with the clear liquid portion prior to staining. Use a mechanical mixer for 1 to 2 minutes to ensure a homogeneous mix is achieved. Frequent agitation may be needed to ensure material does not settle out during application.

Application to New Concrete

- **1. Warning:** Do not apply QC CEMTINT to fresh concrete. QC CEMTINT is not a curing compound. Allow *at least* 14 days for concrete to cure. For optimum results, allow concrete to cure for 28 days or longer.
- 2. Prep surface with QC CON-CLEAN*. After scrubbing thoroughly, rinse the slab of any residue and allow substrate to dry thoroughly before application of QC CEMTINT.
- **3.** Add entire contents of colored pigment pack to QC CEMTINT liquid pack. Mix thoroughly. **Note:** Once color pigment pack is added to liquid pack, product life is 14 days.
- **4.** Using an airless or backpack pump-up sprayer at the recommended coverage rates, apply light, uniform coats of QC CEMTINT. QC CEMTINT can be applied with a brush, sponge or rag for small detail areas.
- **5.** Do not apply more material than the surface will readily absorb. Do not allow the material to puddle or run.
- 6. Multiple applications may be done as long as the material continues to penetrate. If the material no longer penetrates the concrete, no more coats should be applied.
- 7. Apply consecutive coats as soon as the surface is dry to the touch. Cooler temperatures will cause product to penetrate at a slower rate. Each successive coat will dry more slowly than the previous coat. Normally, two coats are needed on trowel-finished concrete. On more porous surfaces, more coats may be needed to achieve the degree of coloration desired. Apply only as much material as the concrete will accept without rejecting the color.

- **8.** Sponging, ragging or other specialty application methods can be used to achieve
- 9. After application, lightly scrub, mop and wash any excess residue with water and allow to dry.
- 10. After QC CEMTINT residue has been removed and the surface has dried, seal immediately.

Application to Existing or Old Concrete

- 1. Surface must be thoroughly cleaned, rinsed and allowed to dry. To clean surface, use QC CON-CLEAN* to open and clean the surface of the concrete. Use of QC CON-CLEAN* will break the surface tension of hard-troweled concrete and allow proper penetration of QC CEMTINT. After scrubbing thoroughly, rinse the slab of any residue and allow substrate to dry thoroughly before application of QC CEMTINT. On smooth surfaces, use a low-speed buffer equipped with scrubbing pads or brushes.
- 2. When applying QC CEMTINT to existing concrete, test prior to application in an inconspicuous area to ensure compatibility. If in doubt about compatibility with existing concrete, contact QC CONSTRUCTION PRODUCTS.
- 3. After cleaning and testing surface, follow application steps listed in the "Application to New Concrete" section.

Surface Protection and Maintenance

OC CONSTRUCTION PRODUCTS offers a full range of high-end sealer systems for colored and stained surfaces to ensure the long lasting protection and enhanced color of the final project. The interior system consists of two coats with a durable base coat sealer, followed by three coats of a special high-solids top coat maintenance sealer. The exterior system consists of two thin coats of a durable

base coat sealer.		
Base Coat Sealers:		Top Coat Sealers:
QC Ultra Seal*	QC Cemseal*	QC Interior Floor Finish* (gloss)
QC Solvent Seal VOC III*	QC PermaSeal*	QC Natural Beauty* (matte)
QC Solvent Seal 18*	QC VOC 100 WB*	
QC Solvent Seal 27*	QC Surpro WB*	
QC Surpro SB*		

All decorative concrete installations should be maintained on a routine basis with the use of QC maintenance products to ensure the preservation of a highquality, long-lasting surface. Maintenance schedules will vary depending on a number of factors, including volume and intensity of traffic, ultraviolet light exposure, geographical location and weather conditions. Resealing will be required periodically, depending on the amount of foot traffic. As with any other surface treatment, the lifetime of this product is dependent on the care it is given. The use of a qualified flooring maintenance contractor is recommended for resealing, especially in commercial applications.

Limitations

- Do not apply QC CEMTINT to fresh concrete. Allow at least 14 days for concrete to cure. For optimum results, allow concrete to cure for 28 days or longer.
- If using pastel or light QC CEMTINT colors over dark gray concrete, very little color will be achieved do to it's transparent characteristics. Pastel or lighter colors are best applied over light gray concrete or light colored overlays.
- Failure to remove dirt and debris from the surface or failure to properly clean the surface before application will result in poor color development.
- QC CEMTINT will not seal structural cracks, voids or holes in concrete.
- QC CEMTINT can bond to glazed materials such as metals, glass and ceramic tile. If QC CEMTINT should adhere to these materials, abrasion may be required for removal. QC CEMTINT is in no way harmful to these materials.
- Certain exotic colors such as Sunflower and Serengeti Sun are not UV stable. (Contact the QC customer service department for details).

Light colors may not completely cover the inherent color of substrate. Test the material before application.

Coverage Rates and Drying Times

Coverage rates may vary depending on the texture, porosity, age and condition of the concrete, the application method, and other local conditions. QC CEMTINT is a true penetrating tinting product. As such, coverage rates may fluctuate dramatically depending on the porosity of the surface. Very porous surfaces, such as porous brick and Mexican pavers, will yield a lower coverage rate.

- *Smooth Finish* 500-600 square feet per gallon.
- Rough or Broom Finish 400-500 square feet per gallon.

Drying times will vary depending on surface permeability, temperature, humidity and local conditions. When drying, do not cover surface with anything nonpermeable for a minimum of 24 hours.

- Dense Surfaces, Set to Touch Dense surfaces will absorb product at a slower rate. For multiple applications of this product, see instructions under "Application to New Concrete" section. Drying time may vary between 5-10 minutes. Dry means that the surface is dry to the touch.
- Porous Surfaces, Set to Touch Porous surfaces may absorb product at a rapid rate, and drying time may vary between 1-10 minutes. As soon as the first coat is dry, repeat.
- Recoat Apply recoats as soon as possible after initial coats. Recoats may be applied at later times, but final color may vary. Test any recoat in a small area prior to full application.

Shelf Life and Storage

QC CEMTINT, if stored un-opened in two distinct packs (tint concentrate pack, liquid pack) has a shelf life of one year.

QC CEMTINT, once colored, must be used within two weeks (14 days).

QC CEMTINT should be stored indoors. Do not allow product to freeze.

Package Sizes

QC CEMTINT is available in 1-gallon units (with 1-pint water-based tint concentrate) and 5-gallon units (with 1-quart water-based tint concentrate).

Applicable Standards

■ LEED Qualified

Technical Data

Please refer to the corresponding MSDS for hazard-related information.

- Color......Tinted to QC specification colors or custom colors as desired
- Flash Point None
- VOC Content...... 0 (Zero)
- Other Nontoxic; contains no VOCs or solvents.

Product Handling

For complete instructions on handling and use, consult the corresponding Material Safety Data Sheet before using product.

Warranty

QC CEMTINT, a proprietary product, is warranted to be of uniform quality within manufacturing tolerances. Since control is not exercised over its use, no warranty, expressed or implied, is made as to the effects of such use. Seller's and manufacturer's obligation under this warranty shall be limited to refunding the purchase price of that portion of the material proven to be defective. The user assumes all other risks and liabilities resulting from use of this product. If you have any questions, please contact QC CONSTRUCTION PRODUCTS.

*PLEASE REFER TO CORRESPONDING PRODUCT INFORMATION BULLETIN FOR TECHNICAL AND APPLICATION DATA.

www.qcconstructionproducts.com

For complete information on all QC products—including product information catalogs, product brochures, color charts, technical specifications, sales aids and more—contact QC CONSTRUCTION PRODUCTS.

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