

PART 1 GENERAL

1.1 REFERENCE

- .1 Comply with the General Conditions of the Contract, Supplementary General Conditions and the requirements of Division 1.

1.2 RELATED WORK SPECIFIED ELSEWHERE

- .1 Cast in Place Concrete Section 03300

1.3 SCOPE OF WORK INCLUDED

- .1 The colour staining of the cast in place floor slab complete with saw cut pattern prior to stain application. Ensure clean state of concrete slab (QC Con Cleaner) prior to application of QC Patina Acid Colour Concrete Staining product, moisture test required to confirm % wet content of slab, 2nd coat application of acid stain, final sealing of floor with QC Natural Beauty Mate and caulking of all sawcut joints
- .2 Subtrade experience in applying this type of colour acid stain product to a concrete floor is mandatory. The Architect / Owner will request to see the finished product of example floor applications supplied and installed by the proponent subtrade.

1.4 SUBMITTALS

- .1 Colour samples of the proposed patterns are to be confirmed with the Architect.

1.5 DELIVERY AND STORAGE

- .1 Store packaged materials in their original wrappings or containers with manufacturer's labels and seals intact. Store flammable materials outside the building and protect from all weather hazards, contact with earth and open flame. Abide by all fire protection regulations imposed by the authorities having jurisdiction, and take precautionary measures to avoid fire.

PART 2 PRODUCTS

2.1 MATERIALS

Contact Form and Build, London
- Attention Mr Greg Rhea Tel # 453-4300

- .1 Refer to the enclosed 4 page QC Patina Stain Specification of products. Note application instructions, cleaning instructions, drying application times for cure time of the 1st coat acid stain application (5 hours), and 2nd coat acid stain application (10-18 hours) , brushing in of colour stain, 1/8" depth saw cutting of pattern outlines, base coat sealers, top coat sealers.

Colour: **Blackfoot**

It is noted that the variation in colour of each specific coloured stain is to be expected and that uniform colours are not achieved on any concrete floor installation. The process of acid stain on concrete can be compared to stain on wood to identify the colour variations that can be expected.

- .2 Dark grey caulking shall be supplied and installed at all 1/2" depth saw cut control joints. Compressed air shall be used to clean joints prior to application of grey exterior grade caulking.

PART 3 EXECUTION

3.1 PREPARATION

- .1 Ensure that all surfaces to receive adhesive or insulation are dry, firm, straight, slightly textured for bond, and free from loose material, projections, ice, frost, slick, grease, oil or other matter detrimental to bond of the adhesive or uniform bedding of the QC Patina Stain.
- .2 Maintain surface and ambient temperature between 10 - 38 deg C. during application and curing.
- .3 Report unacceptable surfaces to Consultant.

3.2 INSTALLATION - GENERAL

- .1 Follow the enclosed manufacturers written instructions.

END OF SECTION

QC PATINA STAIN SPECIFICATION

Materials for Staining:

All Materials will be QC PATINA STAINS as supplied by Form & Build Supply. Application will be in accordance with product information bulletin 5.805.

Before Application:

1. QC PATINA STAINS should be applied to concrete that has fully cured. Concrete should be cured according to ACI standards. For optimum results, allow concrete to cure for 28 days. If stains are applied to concrete that had not fully cured, unpredictable results may occur.
2. No curing compound should be used on any surface where QC PATINA STAIN is to be applied. Where curing is required, use only moisture cure.
3. Before applying QC PATINA STAIN, your surface must be dry, structurally sound and clean – free of dirt, grime and any other material that would act as a resist to the stain.

4. **Before applying QC PATINA STAIN, a job site sample is strongly recommended.**

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 PATINA STAINS followed by recommended finish sealers. Abrade with 100 grit to 120 grit sand paper or sanding disc. To test the surface for colour acceptance, a sample conducted with the proposed QC PATINA STAIN, application procedures and sealing products should be done prior to application to better anticipate results. For existing slabs, it is strongly recommended that a sample be done in an inconspicuous area on the actual surface to be stained.

Application:

1. All surfaces will be clean and of sound cured concrete before applying QC PATINA STAINS.
2. QC PATINA STAIN is best applied with an all-plastic pump-up sprayer at a rate of 200-400 square feet per gallon per application depending on surface texture. Smoother surfaces may yield higher coverage rates, resulting in less material usage.
3. Once sprayed onto surface, a stiff nylon brush can be used to massage stain in a circular motion into the surface. Avoid leaving brush marks or puddles, as they will become permanent if left to dry.
4. As stain is applied, various degrees of acidic reactions, such as fizzing and foaming, might occur. These types of reactions are generally signs that the substrate is accepting the stain. In certain cases, and with certain

- stain colours, no immediate visible reaction may take place. It is important to let the stain dwell for a minimum of 5 hours before rinsing or cleaning.
5. Stains should always be applied in two or more applications. **Important Note:** Two or more applications are typical for concrete flatwork. Consult QC CONSTRUCTION PRODUCTS for questions regarding applications.
 6. Do not rinse stain between coats.
 7. After the first coat has dried (five hours minimum), additional coats can be applied. To avoid any unevenness, brush out any excessive puddles.
 8. Many faux effects can be achieved by the use of special application methods. Applicators such as, but not limited to, sponges, rags and hand sprayers can produce multiple effects. Any modifications to the product or application procedure or applied combinations of QC PATINA STAIN are done at applicator's risk.
 9. All final coat to dry. Recommended minimum dry time for final coat on many surfaces is 10 hours. Dense or burnished surfaces will require a minimum of 18 hours dry time. **Important Note:** For drying time on Adobe and Blackfoot stains, please see "Limitations" section.
 10. Removal of all salty coloured residue and proper surface neutralization of the stained surface is critical. Apply an alkaline solution (1 cup QC CONCRETE DEGREASER cleaner to 1 gallon of water) to the stained surface. Agitate with stiff bristle nylon brushes to remove all coloured residues. (A rotary floor machine with a pad driver and soft pad may also be used with care.) The use of a wet/dry vacuum is recommended to pick up coloured waste water. Control and/or collect run-off to keep from discolouring surface not designated for stain. Once all coloured residue has been removed, rinse the floor with clean water until rinse water runs clear. When the floor is wiped with a white rag and comes away clean, the surface has been properly cleaned. **Note:** Multiple cleaning and neutralization cycles may be needed, especially when using high solids stain colours such as Adobe and Blackfoot. Under normal circumstance all coloured residue water and rinse water should be collected and disposed of properly. (Always consult Material Safety Data Sheets and appropriate agencies for disposal information.)
 11. Prior to sealing, the surface must be clean and dry. After the final rinse cycle, wait 24 hours before applying any sealer. Fans and blowers may be used to speed the drying process. **Note:** Temperature and humidity will affect the drying times of the surface.

Sealing:

All surface to be sealed with two coats of WR Meadows HIAC concrete sealer. **Ensure all surfaces have been neutralized before application of sealer.**

Maintenance:

- Maintenance will vary depending on a number of factors, including volume and intensity of traffic, geographic location, ultraviolet light exposure and weather conditions.
 - It is strongly recommended that a routine maintenance schedule be followed so the surfaces maintain a high quality appearance. Periodically and as required by volume and intensity of traffic, stained surfaces should be inspected, cleaned and resealed.
 - Stained surfaces should be routinely swept and damp-mopped of dirt/loose debris to avoid unnecessary wear to the surface.
 - The use of QC PATINA INTERIOR FLOOR FINISH GLOSS or QC NATURAL BEAUTY MATE is highly recommended as a maintenance sealer over all interior stained surfaces.

Limitations:

- Inconsistencies in job site conditions, base colour, concrete mix design and slump, curing methods, finishing practices, stain application, surface permeability, and age and condition of concrete in existing slabs may produce variations in the colour of the finished product.
 - On the QC PATINA STAIN Colour chart, standard QC PATINA STAIN colours are shown applied to both uncoloured (gray) concrete and to QC COCONUT COLOUR HARDENER base. However, QC PATINA STAINS product unique effects to each individual concrete substrate and may differ significantly from the colours shown on the chart. There is an element of uncertainty and unpredictability inherent in the use and final appearance of QC PATINA STAINS including uneven, mottled or translucent effects. Product literature photos and sample colour chips provide a good representation of the palette, but the actual colours achieved may differ significantly.