

GENERIC GUIDE SPECIFICATION WATERBASED PENETRATING: CONCRETE CURE/HARDENER/DUSTPROOFER

SECTION 03 35 00

Concrete Finishing

Specifier Notes: This guide specification is written according to the Construction Specifications Canada (CSC) Master Format '04. The section must be carefully reviewed and edited by the architect or engineer to meet the requirements of the project. Coordinate this section with other specification sections and the drawings.

Specifier Notes: Use a penetrating liquid concrete cure specially formulated as a general purpose curing aid, hardener and densifier. It is not to contain wax, resin or acids.

Penetrating, non-membrane forming, liquid hardeners are ideal for curing, hardening and dust proofing exposed concrete floor slabs, sidewalks, driveways, beams, columns, etc. It can be used to provide a hard, dust-free surface on concrete floors to be painted or covered by resilient, carpeted, wood, or synthetic flooring.

General

1.1 SECTION INCLUDES

- .1 Surface preparation.
- .2 Application of clear, water-based non-membrane forming concrete cure and hardener.

1.2 RELATED SECTIONS

Specifier Notes: Edit the list of related sections as required for the project. List other sections dealing with work directly related to this section.

- .1 Section 03 00 00 - Cast-in-Place Concrete.

1.3 SUBMITTALS

- .1 Comply with Section 01 33 00 - Submittal Procedures.
- .2 Submit manufacturer's product data and application instructions.

1.4 DELIVERY, STORAGE, AND HANDLING

- .1 Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- .2 Store materials in a clean, dry area in accordance with manufacturer's instructions.
- .3 Keep products from freezing.
- .4 Avoid direct contact with this product as it may cause mild to moderate irritation of the eyes and/or skin.
- .5 Protect materials during handling and application to prevent damage or contamination.

1.5 ENVIRONMENTAL REQUIREMENTS

- .1 Do not apply concrete curing aid and hardener when concrete temperature is below 2° C (35° F) or above 57° C (135° F).
- .2 Do not apply to frozen concrete.

2 **Products**

2.1 MATERIALS

- .1 Performance Based Specification:
 - .1 Concrete Curing Aid and Hardener shall be a ready to use, water-base liquid, formulated with chemically reactive raw materials with a VOC content of 0 g/l.
 - .2 The manufacturer shall provide a minimum product warranty of 10 years against dusting on interior smooth finish concrete.
 - .3 Penetrating cure and hardener shall not leave a surface membrane.
 - .4 Any penetrating cure and hardener that requires scrubbing and removal of excess product shall not be used. Application instructions will identify this. This excess material is considered hazardous waste and shall not be used on this site.

2.2 RELATED MATERIALS

- .1 Water: Potable water.

3 **Execution**

3.1 EXAMINATION

- .1 Examine surfaces to receive curing aid and hardener. Notify architect if surfaces are not acceptable. Do not begin application until unacceptable conditions have been corrected.

3.2 SURFACE PREPARATION

- .1 Protect adjacent surfaces not designated to receive treatment.
- .2 Ensure application equipment is clean and free of previously used materials.

3.3 APPLICATION

- .1 Apply concrete curing aid and hardener in accordance with manufacturer's instructions.
- .2 Do not dilute concrete curing aid and hardener.

.3 Fresh Concrete

- .1 Apply concrete curing aid and hardener once the final pass of the power trowel is completed.
- .2 Apply one even coat with a pressure hand sprayer at a rate of approximately 400 ft²/gallon or (9.8 m²/litre)
- .3 On colored concrete do not apply for 3 days.
- .4 Do not allow material to puddle on the surface.
- .5 After 28 days apply one coat of the penetrating liquid hardener.
- .6 Do not allow material to puddle on the surface.

.4 Existing Concrete

- .1 Clean and prepare surfaces to receive treatment in accordance with manufacturer's instructions, ensuring that all stains, oil, grease, form release agents, dust, and dirt are removed prior to application.
- .2 Apply one even coat of penetrating liquid hardener with a pressure hand sprayer or paint roller.

3.4 PROTECTION

- .1 Keep heavy traffic off surface for 24 hours after application.
- .2 Clean floor regularly in accordance with manufacturer's recommendation. The use of a walk behind floor scrubbing machine will accelerate the development of a shine.
- .3 Clean up spills immediately and spot-treat stains with a good degreaser or oil emulsifier.
- .4 Precautions and cleaning are the responsibility of the General Contractor until substantial completion.

END OF SECTION