

Part 1 General

1.1 SECTION INCLUDES

- .1 Concrete hardener and sealing compounds.

1.2 RELATED SECTIONS

- .1 Structural Specifications

1.3 REFERENCES

- .1 A23.1-09/A23.2-09 - Concrete materials and methods of concrete construction/Test methods and standard practices for concrete.

1.4 SUBMITTALS FOR REVIEW

- .1 Section 01 33 00: Submission procedures.
- .2 Product Data: Provide data on materials and application requirements.
- .3 Submit Material Safety Data Sheet (MSDS) for products provided.

1.5 SUBMITTALS FOR INFORMATION

- .1 Section 01 33 00: Submission procedures.
- .2 Manufacturer's Application Data: Indicate special procedures, conditions requiring special attention, and other details.
- .3 Test Reports: Submit substantiating data, test results of previous tests by independent laboratory which purport to meet performance criteria, and other supportive data prior to application of Work.

1.6 CLOSEOUT SUBMITTALS

- .1 Section 01 78 00: Closeout Submittals.

1.7 QUALITY ASSURANCE

- .1 Manufacturer Qualifications: Company specializing in manufacturing the Products specified in this section with minimum five (5) years documented experience.
- .2 Applicator Qualifications: Company specializing in performing the work of this section with minimum two (2) years documented experience and approved by the manufacturer.
- .3 Materials:
 - .1 Minimum five (5) years documented field installations.
 - .2 Not to affect bonding capability of other materials applied to substrate.
- .4 Provide materials of this section from single manufacturer.

1.8 DELIVERY, STORAGE, AND PROTECTION

- .1 Section 01 61 00: Transport, handle, store, and protect products.
- .2 Store containers to manufacturer's written instructions.
- .3 Protect materials from freezing.

1.9 ENVIRONMENTAL REQUIREMENTS

- .1 Maintain ambient temperatures above 5 degrees C (40 degrees F) for twenty-four (24) hours before and during application and until liquid or mastic accessories have cured.

1.10 ENVIRONMENTAL CONTROL

- .1 Refer to Material Safety Data Sheet for information related to product contact with skin and eyes.

Part 2 Products

2.1 MANUFACTURERS

- .1 Hardener: Floor Hardener Pre-Mix (standard); Product: CPD.
- .2 Sealer: Acrylic Cure and Seal; Product: CPD.
- .3 Other acceptable manufacturers offer functionally and aesthetically equivalent products:
 - .1 Sealer: Lapidolith; Product: SONNEBORN.
- .4 Substitutions: Refer to City of Winnipeg Bid Opportunity..

2.2 MATERIALS

- .1 Water: Potable.
- .2 Hardener: Two step process used to harden and seal newly poured concrete floors. Hardener is a dry, granular mixture of Portland Cement and non-metallic hardening agents used for concrete floors exposed to abrasive and light to medium traffic.
 - .1 Standard of Acceptance:
 - .1 CPD; Product: Floor Hardener Pre-Mix (premium).
- .3 Sealant: Water based acrylic curing, sealing, and dustproofing compound; solution of chemically active hardening agents; clear.
 - .1 Standard of Acceptance:
 - .1 CPD; Product: Acrylic Cure and Seal WB.

Part 3 Execution

3.1 EXAMINATION

- .1 Section 01 71 00: Verify existing conditions before starting work.

- .2 Ensure surfaces are clean, dry and free of contaminants.
- .3 Ensure new concrete has cured minimum 28 days.
- .4 Ensure ambient temperature is minimum 10 deg C (50 deg F), and substrate temperature is minimum 4 deg C (40 deg F).
- .5 Apply Sealer only after the disappearance of all surface moisture.
- .6 Do not apply material if rain is predicted within six (6) hours after application to exterior surfaces.

3.2 PREPARATION

- .1 Surfaces must be clean, dry and free of all loose dirt, oil, wax, sealer, curing and parting compounds, and other foreign matter. Clean substrate surfaces to manufacturer's written instructions.
- .2 Acid wash or shot-blast steel trowelled surfaces, or surface harder installed floors.
- .3 Perform application on minimum 0.85 sq m (9 sq ft) test section; obtain approval of test section from Contract Administrator before proceeding with application.

3.3 INSTALLATION

- .1 Install membrane and tape seal to manufacturer's written instructions.
- .2 Protect adjacent work from spillage and overspray. Remove overspray on adjacent surfaces immediately before dry.
- .3 Apply materials where indicated and allow to cure according to manufacturer's written instructions.
- .4 Do not dilute or mix materials with other sealers.
- .5 Apply sealer with brush, roller or low pressure airless sprayer.
- .6 Apply even coats allowing for and observing adequate penetration. Do not allow surface to dry between coats.
- .7 Do not apply compound to surfaces that are restricted by product manufacturer.
- .8 Clean substrate and equipment with potable water.
- .9 Hardener:
 - .1 Apply in accordance with manufacturer's recommendations and technical instructions. It is critical that the hardener be provided at the appropriate time.
 - .2 Apply two shakes which should be no less than 3.5kg/m² for light manufacturing and 8kg/m² for heavy manufacturing.
 - .3 The first shake should be floated immediately to ensure it is completely in the concrete. The second shake should follow the first and be floated immediately.
- .10 Sealer:

- .1 Apply in accordance with manufacturer's recommendations and technical instructions.
- .2 Apply by brush, roller, or sprayer approximately 1-2 hours after final trowelling and disappearance of surface moisture.
- .3 Cover approximately 5.5m²/L.
- .4 Reapply at least 24 hours after first application.

3.4 SCHEDULE

- .1 Supply and install hardener and sealer to concrete slab in all areas with a final floor finish of exposed concrete, unless noted otherwise on Room Finish Schedule.
- .2 Refer to Room Finish Schedule

END OF SECTION