

PART 1 - GENERAL

1.1 RELATED REQUIREMENTS

- .1 Section 03 30 00.

1.2 REFERENCES

- .1 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-25.20-95, Surface Sealer for Floors.
- .2 CSA International
 - .1 CAN/CSA-A23.1-09/A23.2-09, Concrete Materials and Methods of Concrete Construction//Methods of Test for Concrete.
- .3 South Coast Air Quality Management District (SCAQMD), California State
 - .1 SCAQMD Rule 1168-A2005(June 2006), Adhesives and Sealants Applications.

1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit submittals in accordance with Section 01330 - Submittal Procedures.
- .2 Product Data:
 - .1 Provide manufacturer's printed product literature and data sheets for concrete finishes and include product characteristics, performance criteria, physical size, finish and limitations.
 - .1 Provide two copies of WHMIS MSDS. WHMIS MSDS acceptable to Labour Canada and Health and Welfare Canada for concrete floor treatment materials. Indicate VOC content in g/L.
 - .2 Include application instructions for concrete floor treatments..

1.4 ENVIRONMENTAL REQUIREMENTS

- .1 Temporary lighting:
 - .1 Minimum 1200 W light source, placed 2.5 m above floor surface, for each 40 sq m of floor being treated.
- .2 Electrical power:
 - .1 Provide sufficient electrical power to operate equipment normally used during construction.
- .3 Work area:
 - .1 Make work area water tight protected against rain and detrimental weather conditions.

- .4 Temperature:
 - .1 Maintain ambient temperature of not less than 10 degrees C from 7 days before installation to at least 48 hours after completion of work and maintain relative humidity not higher than 40% during same period.
- .5 Moisture:
 - .1 Ensure concrete substrate is within moisture limits prescribed by flooring manufacturer.
- .6 Safety:
 - .1 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of hazardous materials.
- .7 Ventilation:
 - .1 Ventilate area of work as directed by Departmental Representative by use of approved portable supply and exhaust fans.
 - .2 Ventilate enclosed spaces in accordance with Section 01510 - Temporary Utilities.
 - .3 Provide continuous ventilation during and after coating application.

1.5 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements:
 - .1 Deliver materials to site in original factory packaging, labelled with manufacturer's name, address.
- .3 Packaging Waste Management: remove for reuse and return by manufacturer of packaging materials in accordance with Section 01355 - Construction/Demolition Waste Management and Disposal.

PART 2 - PRODUCTS

2.6 SUSTAINABLE REQUIREMENTS

- .1 Materials and products in accordance with Section 01362 - Sustainable Requirements: Construction

2.7 PERFORMANCE REQUIREMENTS

- .1 Product quality and quality of work in accordance with Section 01610 - Common Product Requirements.

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| | .2 | Submit written declaration that components used are compatible and will not adversely affect finished flooring products and their installation adhesives. |
| <u>2.8 CHEMICAL HARDENERS</u> | .1 | Magnesium fluosilicate (Fire Hazard Areas only) or Zinc fluosilicate blend as required. |
| | .2 | Water: potable. |
| <u>2.9 SEALING COMPOUNDS</u> | .1 | Surface sealer: to CAN/CGSB-25.20, clear. |
| | .2 | Sealants: maximum VOC limit 250 g/L to SCAQMD Rule 1168. |
| | .3 | Surface sealer: acrylic carnuba wax, colour clear. |
| <u>2.10 CURING COMPOUNDS</u> | .1 | Select low VOC, water-based, organic-solvent free curing compounds. |
| <u>2.11 CONCRETE STAINS</u> | .1 | Select low VOC, water-based concrete stains. |
| <u>2.12 MIXES</u> | .1 | Mixing ratios in accordance with manufacturer's written instructions. |
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<u>PART 3 - EXECUTION</u> | | |
| <u>3.13 EXAMINATION</u> | .1 | Verify that surfaces are ready to receive work and elevations are as indicated on drawings. |
| <u>3.14 PREPARATION OF EXISTING SLAB</u> | .1 | Rub exposed sharp edges of concrete with carborundum to produce 3 mm radiused edges unless otherwise indicated. |
| | .2 | Saw cut control joints to CAN/CSA-A23.1, 24 hours maximum after placing of concrete. |
| | .3 | Use mechanical stripping to remove chlorinated rubber or existing surface coatings. |
| | .4 | Use protective clothing during stripping of chlorinated rubber or existing surface coatings. |
| <u>3.15 APPLICATION</u> | .1 | Apply concrete finishing floor hardener in accordance with manufacturer's written instructions. |

- .2 After floor treatment is dry, seal control joints and joints at junction with vertical surfaces with sealant.
- .3 Apply floor treatment in accordance with Sealer manufacturer's written instructions.
- .4 Clean over spray. Clean sealant from adjacent surfaces.

3.16 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 0174 - Cleaning. Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01740 - Cleaning.
- .3 Waste Management: separate waste materials for reuse and recycling in accordance with Section 01355 - Construction/Demolition Waste Management and Disposal.

3.5 PROTECTION

- .1 Protect finished installation in accordance with manufacturer's instructions.

3.6 SCHEDULE

- .2 Glass fibre reinforced concrete sink – GFRC Face Mix base with surface finish to be polished and finished with a penetrating sealer and protective finish to protect against structural cracking and staining and finish shall not require regular re-application. Finish color to be natural or from the manufacturers standard line, Standard of acceptance : NuCrete