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| Version | Date | Description of Revisions |
| 1 | August 30, 2006 | Approved final document. |
| 2 | November 13, 2009 | Modified ‘Related Section’ |
| 3 | April 18, 2011 | Modified “2.1 Manufacturers” |
| 4 | June 27, 2012 | Addition of References and Replacement Parts sections on this page |
| 5 | July 9, 2012 | Reformatted to Reduce White Space |
| 6 | April 23, 2015 | General Formatting |
| 7 | September 30, 2015 | First draft Phase 1 review (AV) |
| **8** | **December 14, 2015** | **Updated, Finalized Specification – Legal Reference eDOCS #6324304 v3 (AV)** |

NOTE:

This is a CONTROLLED Document. Any documents appearing in paper form are not controlled and should be checked against the on-line file version prior to use.

**Notice:** This Document hardcopy must be used for reference purpose only.

**The on-line copy is the current version of the document.**

# GEneral

## Related Sections

### *[Under "Related Sections", identify other Sections that are related to, and/or dependent on, the work results or information specified elsewhere. The list should be limited to Sections with specific information that the reader might expect to find in this Section, but is specified elsewhere. For example, if hardware for aluminum entrances is specified in the aluminum entrance Section, a cross-reference would be appropriate in the finish hardware Section. The purpose of this cross-referencing is for information only, to aid in finding those other requirements—not to define the scope of the Section.*

### *Cross-referencing here may also be used to coordinate assemblies or systems whose components may span multiple Sections and which must meet certain performance requirements as an assembly or system.*

### *Contractor is responsible for coordination of the Work.*

### *This Section is to be completed/updated during the design development by the Consultant. If it is not applicable to the section for the specific project it may be deleted.]*

### *[List Sections specifying installation of products supplied but not installed under this Section and indicate specific items.]*

### Section [\_\_\_\_\_\_ – \_\_\_\_\_\_\_\_\_\_\_\_]: Execution requirements for ...[item]... specified under this Section.

### *[List Sections specifying products installed but not supplied under this Section and indicate specific items.]*

### Section [\_\_\_\_\_\_ – \_\_\_\_\_\_\_\_\_\_\_\_]: Product requirements for ...[item]... for installation under this Section.

### *[List Sections specifying related requirements.]*

### Section [\_\_\_\_\_\_ – \_\_\_\_\_\_\_\_\_\_\_\_]: [Optional short phrase indicating relationship].

## Submittals

### Samples: Submit two 50 mm x 100 mm samples of each type of coating with slip resistant texture, mounted on cement board.

### Shop Drawings and Product Data:

#### Supply product data for engineered system.

#### Manufacturer’s product specification.

#### Chemical resistance test results for exposure to service conditions.

#### Application instructions.

#### Configuration details of materials at terminations, construction joints, floor drains, and trenches.

### Quality Control Submittals:

#### Letter from manufacturer stating applicator is qualified to do the Work and meets the quality assurance minimum experience requirements.

#### Sample of warranty, prior to starting Work.

#### Installation instructions.

#### Field inspection and test reports.

#### Manufacturer’s Certificate of Proper Installation.

### Contract Closeout Submittals: Special guarantee.

## Quality Assurance

### Manufacturer’s Experience: Minimum 5 years experience in manufacturing and installing engineered systems.

### Applicator’s Experience: Minimum 5 years experience in applying specific systems and must be approved by the manufacturer.

## Delivery, Storage, and Handling

### Deliver materials in the manufacturer’s original, unopened containers.

### Storage: Maintain materials in clean and dry condition. Follow the manufacturer’s instructions.

## Environmental Requirements

### Temperature: Apply coating only when substrate, ambient air, and coating material are 19 degrees Celsius or above.

### Substrate: Not wet or have standing water.

### Ventilation: Provide during and after application to meet all applicable safety and health regulations.

## Extra Materials

### Furnish minimum 10 litres of unopened top coating material for future use by the Region.

## Special Guarantee

### Furnish the manufacturer’s extended guarantee or warranty, with Region named as beneficiary, in writing, as special guarantee. Provide special guarantee for correction, or at the option of the Region, removal and replacement of Work specified in this Specification section found defective during a period of 2 years after the date of Substantial Completion. Duties and obligations for correction or removal and replacement of defective Work as specified in the General Conditions.

## Measurement and Payment

*[Choose one of the following payment language provisions that best suits the individual project.*

*If this Section is not specifically referenced by an item in the Bid Form, please use the following language:*

### The work of this Section will not be measured separately for payment. All costs associated with the work of this Section shall be included in the Contract Price.

*OR If this Section is specifically referenced in the Bid Form, use the following language and identify the relevant item in the Bid Form:*

### All costs associated with the work of this Section shall be included in the price(s) for Item No(s). \_\_\_ in the Bid Form.

*If the work of this Section is to be measured and paid for by several different methods, please amend the standard wording given above to reflect the different methods of measurement and payment.*]

# PRODUCTS

## Manufacturers

### ProCoat UK Ltd.; (Ceilcote)

### Stoncor Group, Stonhard

### Sika Canada Inc.; Duochem

### BASF Master Builders Solutions; Chemrex

### RPM International; Carboline, Semstone (110 primer and 140/145)

### Approved Equivalent

## Service Conditions

### Location: Covered, ambient temperature conditions [outdoors, exposed to weather].

### Surface: Concrete floors and concrete masonry unit walls for secondary chemical storage.

### Traffic: Foot, light hand truck.

### Protection: Protect against immersion of chemical for up to 48 hours.

### Chemicals Stored in Containment Areas:

#### Sodium Bisulphite; 38 percent solution; pH 3.7-5.3; ambient temperature.

## Coating Systems

### Chemical-resistant Coatings: Mat reinforced mixture of liquid resin-based material, setting agent, and filler designed to be troweled into place to cure to a hard state. Minimum 60 mil thick.

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| --- | --- | --- | --- | --- |
| Item | Description | No. of Coats | Colour | Nominal Thickness (mils/microns) |
| **Vapour Retarder** | As required to suit site conditions. | | | |
| **Primer** | Resin Primer | 1 | Translucent | Varies |
| **Fill Coat** | Resin Mortar | 1 | Grey | Varies |
| **Reinforcing Layer** | Fiberglass Mat + Resin Saturant | 1 | Translucent | 25/625 |
| **Topcoat** | Flake Filled Resin Coating | 2 | Grey | 35/875 |
| **Nominal Coating System Thickness (excluding vapour retarder, primer and fill coat): 60 mils (1.5 mm)** | | | | |

### Non-skid Surface: Furnish silica aggregate, which has been approved by the coating manufacturer, for non-skid finish surface. Apply silica aggregate in accordance with the manufacturer’s recommendations.

### Individual components must be engineered and tested by the manufacturer as a proven system with its own product data sheet.

### Vapor Retarder: As recommended by the coating manufacturer in accordance with ASTM *[Consultant to add details]*. Provide vapour retarder to suit specific Site conditions. Provide vapour retarder on slabs on grade and surfaces adjacent to water containing structures.

## Mixing

### All resin materials to be pre-packaged at factory in individual pre-measured mixes. No on-Site measuring of resin materials will be allowed.

# EXECUTION

## Examination

### Surface Preparation:

#### Inspect and provide substrate surfaces prepared in accordance with these Specifications, the printed directions, and recommendations of the system manufacturer whose product is to be applied.

#### Provide notice to the Consultant a minimum of 3 Days in advance of the start of surface preparation and system application work.

#### Perform Work only in the presence of the Consultant, unless the Consultant grants prior approval to perform Work in the Consultant’s absence.

### Schedule inspection with the Consultant in advance for cleaned surfaces and system application work.

## Preparation

### Follow the manufacturer’s current printed directions and recommendations.

### Fill holes and cracks with the manufacturer’s recommended materials to produce an even surface for the application of systems.

### Surface Preparation:

#### Do not begin until 30 Days after concrete has been placed.

#### Remove grease, oil, dirt, salts or other chemicals, loose materials, or other foreign matter by solvent, detergent, or other suitable cleaning methods.

#### Brush off blast clean to remove loose particles and provide a tooth for binding.

#### Apply fill coat to remove surface irregularities such as concrete masonry unit grout joints, bug holes or rough areas created by abrasive blast preparation. Thickness as required to achieve continuous uniform surface for coating system overlay. Apply fill coat comprising of mixture catalyzed resin and filler powder or 2 component resin mortar. Ensure resin is chemically compatible with the primer and coating system.

#### Secure the coating manufacturer’s recommendations for additional preparation if required for proper adhesion. Ensure surfaces are dry prior to coating application.

## Application

### Install coating systems in accordance with the manufacturer’s printed instructions.

### Unless otherwise specified or shown, install coating systems to vertical and horizontal surfaces of containment area for storage tanks, pumps, and piping. Extend coating to horizontal tops of containment area walls.

### Extend surfacing completely under structures and equipment located within the containment area. Install at construction joints in substrate and floor drains, trenches, sumps, and other components within the containment area.

## Finish

### Horizontal and Vertical Surfaces: Smooth and even, free of brush, trowel or other application tool marks.

## Field Quality Control

### Inspection:

#### Inspect finished work for complete, uniform coverage of the specified systems. Evidence of defects includes improper thickness, hardness, and appearance.

#### Consultant may require destructive test or other tests to be performed by an independent agent upon completion of installation.

## Manufacturer’s Services

### The Contractor shall ensure that the manufacturer’s representative attends at Site for installation assistance, inspection, and completion of the Manufacturer’s Certificate of Proper Installation.

## Protection

### Remove, as Work progresses, excess or foreign materials which would set up or become difficult to remove from finished surfaces.

### Protect finished surfaces from liquids, traffic, welding sparks and other defacements until the building is turned over to the Consultant.

**END OF SECTION**