PLANISEAL CR2 H
Two-Component, Cold-Fluid-Applied Structural Waterproofing Membrane

SECTION 07 14 16
COLD-FLUID-APPLIED WATERPROOFING

PART 1 GENERAL

1.1 SECTION INCLUDES

Products for maintenance of concrete, including the following:

1. Products for waterproofing.

1.2 RELATED SECTIONS

A. Section 07 – Thermal and Moisture Protection

1.3 SUBMITTALS

A. Submit under provisions of Section 01 30 00 - Administrative Requirements.

B. Product Data: Manufacturer's data sheets on each product to be used, including:
1. Preparation instructions and recommendations.
2. Storage and handling requirements and recommendations.
3. Installation methods.

C. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square representing actual product, color and patterns.

1.4 QUALITY ASSURANCE

A. Manufacturer Qualifications: Minimum 5 years' experience in manufacturing similar products.

B. Installer Qualifications: Minimum 2 years' experience in installing similar products.

C. Source Limitations: For repair products, obtain each color, grade, finish, type and variety of product from single source and from single manufacturer with resources to provide products of consistent quality in appearance and physical properties.

D. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
1. Finish areas designated by Architect.
2. Do not proceed with remaining work until workmanship is approved by Architect.
3. Refinish mock-up area as required to produce acceptable work.

1.5 PRE-INSTALLATION MEETINGS

A. Convene at least two weeks prior to starting work of this section.

1.6 DELIVERY, STORAGE AND HANDLING

A. Deliver and store products in manufacturer's unopened packaging bearing the brand name and manufacturer's identification until ready for installation.

B. Handling: Handle materials to avoid damage.

1.7 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.

1.8 SEQUENCING

A. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Product Performance:

Solids content	100%
Tensile strength – ASTM D412	456 psi (3.14 MPa)
Elongation – ASTM D412	148% minimum

B. Acceptable Manufacturer:

MAPEI North America
1144 E. Newport Center Drive; Deerfield Beach, FL 33442
Toll-Free for CRS Technical Services: Tel. 888-365-0614
Email: CRS@mapei.com
Web: www.mapei.com

C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

D. Substitutions: Not permitted.

2.2 COLD-FLUID-APPLIED WATERPROOFING

A. Fast-curing, 100%-solids, cold-fluid-applied, single-component, moisture-curing, structural waterproofing membrane.

1. Product: Subject to compliance with requirements, provide MAPEI Corporation; Planiseal CR1.
2. Product shall be non-dispersible.
3. Elongation: Not less than 148% when tested according to ASTM D412.

2.3 MISCELLANEOUS MATERIALS

A. Portland cement: ASTM C150/C150M, Type I, II or III unless otherwise indicated.

B. Water: Potable.

2.4 MIXES

A. General: Mix products, in clean containers, according to manufacturer's written instructions.
   1. Do not add water, thinners or additives unless recommended by manufacturer.
   2. When practical, use manufacturer's premeasured packages to ensure that materials are mixed in proper proportions. When premeasured packages are not used, measure ingredients using graduated measuring containers; do not estimate quantities or use shovels or trowels as units of measure.
   3. Do not mix more materials than can be used within time limits recommended by manufacturer. Discard materials that have begun to set.

PART 3 EXECUTION

3.1 EXAMINATION

A. Compatible with common construction materials such as concrete, stone, metal, wood (pressure-treated and fire-treated), rigid insulation and insulating concrete forms (ICF).

B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

A. Do not apply Planiseal CR2 H to frozen or wet substrates. The membrane should be protected from direct sunlight as soon as possible after installation. Planiseal CR2 H can be applied to concrete, metal, plastic, wood, insulated wall systems and masonry surfaces. All substrates must be clean, dry, and free of voids, protrusions, spalled areas, loose aggregate and surface irregularities. Remove contaminants such as grease, oil, and wax from exposed surfaces. Also remove dust, dirt, loose stone and debris.

B. Apply Planiseal CR2 H only in dry weather or when precipitation is not imminent, and when the ambient and substrate temperatures are above 40°F (4°C).

C. Concrete substrates: Structural concrete must be cured for at least 7 days. Repair any surfaces that are not structurally sound or have voids, protrusions, rough spalled areas, loose aggregate or exposed coarse aggregate. Any voids exceeding 1/4" (6 mm) in width should be filled with Planitop X or Planitop XS or another latex Portland cement, concrete or epoxy concrete, and should be troweled smooth to match the existing surface. Protrusions and other rough areas should be broken off or ground down and patched with Planitop X or Planitop XS or another latex Portland cement.

D. Priming: Priming is not required for adhesion. However, if pinhole and blister problems are likely to occur due to air and/or moisture vapors being trapped or emitted from the concrete, a 4- to 7-mil application of Planiseal CR2 H is recommended to remove trapped air/vapor. This thin-mil application of Planiseal CR2 H will promote adhesion to the substrate and establish a cohesive bond with the subsequent coat of Planiseal CR2 H.

3.3 MIXING

Before product use, take appropriate safety precautions. Refer to the Safety Data Sheet for details.

A. Pre-stir Part A mechanically using a drill and a mixing paddle with a diameter of 2" (5 cm).

B. Pour Part B into Part A and mix for no more than 1 minute using a drill at 150 rpm and a mixing paddle with a diameter of 2" (5 cm) without trapping air.

3.4 INSTALLATION

Planiseal CR2 H can be applied as a standalone waterproofing membrane for general horizontal waterproofing applications such as balconies and plaza decks. Planiseal CR2 H can be applied with a medium-nap roller, brush, trowel or squeegee.

Single-coat systems:

A. Apply the first coat of Planiseal CR2 H at least 60 mils thick.

B. Allow the system to cure for 24 hours. Then install the protection course or drainage composite to avoid damage from other trades, construction materials, backfill or overburden. Use an appropriate Mapedrain drainage composite. The Mapedrain drainage composite should be adhered to the membrane using Mapebond 720 contact adhesive. For applications where positive drainage is not desired, the use of Mapecover 810 protection board is recommended. Note that Mapecover 810 does not provide positive drainage to the system and that various warranties require specific protection products or materials.

C. Place backfill or overburden as soon as possible. Use care during the backfill operation to avoid damage to the waterproofing system. Follow generally accepted industry practices for backfilling and compaction. Backfill should be added and compacted in lifts from 6" to 24" (15 to 61 cm) and compacted to 85% modified proctor.

END OF SECTION