

# **Impact RM with Conpro Lastic**

# **Division 3: Concrete**

A non-insulated exterior wall system directly attached to the existing substrate with reinforced metal.

#### SECTION 099726 - CEMENTITIOUS COATINGS

#### PART 1 GENERAL

## 1.1 SUMMARY

Provide labor, materials, equipment and supervision necessary to complete the application of product to the substrate.

#### 1.2 SYSTEM DESCRIPTION

The products shall meet or exceed the following performance requirements:

508.3

Surface burning	ASTM E84	FSI equals 5 – Pass
Full scale fire test	ASTM E108 Modified	Did not ignite – Pass
Humidity	FS 141A Method –	Pass
exposure	6201	
Salt spray	ASTM B117	Pass
Absorption and	EIMA 101.01, ASTM	Pass
freeze/thaw	C67 Modified	
Water vapor	ASTM E96	Perms 1.747 grains per
transmission		hour foot squared
Sand abrasion	ASTM D968	500 liters – Pass
Accelerated	ASTM G23	2000 hours - Pass
weathering		
Mildew resistance	Mil. Std. 810D Method –	Pass

# 1.3 SUBMITTALS

- A. Manufacturer's current product data bulletin.
- B. The trained applicator shall prepare a test area on the structure as a submittal for approval of proper application, color and texture.
- C. The trained applicator shall submit to the specifier a list of five projects that he has completed within the last five years, exhibiting the applicator's skills. The list shall include project name, location, and description of work and completion date.

# 1.4 QUALITY ASSURANCE

Products shall be installed by a trained applicator with a minimum of five years' experience and meet the requirements of the specifier.

# 1.5 DELIVERY, STORAGE & HANDLING

A. Deliver all products in original labeled, sealed, and undamaged containers.



- B. Store all products in accordance with manufacturer's printed instructions.
- C. Handle products in accordance with manufacturer's printed instructions.

#### 1.6 PROJECT/SITE CONDITIONS

- A. All products shall be applied at substrate and ambient temperatures of 40 degrees F or above.
- B. A minimum ambient and substrate temperature of 40 degrees F shall be maintained 24 hour after completion of work.
- C. Protect products from precipitation and high wind for at least 8 hours.
- D. Do not apply products to frozen surfaces.

#### 1.7 SCHEDULING

The work requires close coordination with related sections and trades.

## PART 2 PRODUCTS

## 2.1 MANUFACTURERS

The following manufacturers are approved for the project.

Conproco Corp.

#### 2.2 MATERIALS

- A. Structural Skin: Fiber-reinforced cementitious structural coating.
- B. K-88: An acrylic admixture designed to enhance the performance of cement-based products.
- C. Plastic Components joint and trim accessories:
  - 1. #6625 Casing Bead by Vinvl Corp
  - 2. #1 Corner Bead by Vinyl Corp
  - 3. #1525 Control Joint by Vinyl Corp
  - 4. Clark Dietrich Self-Furred Dimpled Lath (SFD), LAD 2.5
- D. Galvanized Components and trim accessories:
  - 1. #66x 3/8" Casing Bead by Clark Dietrich
  - 2. #1A Corner Bead by Clark Dietrich
  - 3. #15 Control Joint by Clark Dietrich
  - 4. Clark Dietrich Self-Furred Dimpled Lath (SFD), LAD 2.5

## PART 3 EXECUTION

#### 3.1 EXAMINATION

- A. Installation shall be performed strictly in accordance with manufacturer's current product data bulletin.
- B. Examine substrates and conditions under which materials will be installed. Do not proceed with installation until unsatisfactory conditions are corrected.



C. Coordinate installation with adjacent work to ensure proper sequence of construction. Protect adjacent areas and landscaping from contact due to mixing, handling, and application of materials.

# 3.2 SURFACE PREPARATION

- A. Remove loose and deteriorated material, laitance, dirt, dust, oil and any surface contaminants that will inhibit proper application. Substrate must be of sound condition to carry the additional weight of the wall system.
- B. Repair spalled areas, static cracks and voids prior to installation of flashing and lath. Allow repair materials to properly cure before installing Structural Skin.
- Apply Tyvek Stucco Wrap or equivalent weather barrier in accordance with manufacturer's instructions.
- D. All detailing must be designed prior to the installation of the wall system.
- E. Expansion joints will be installed where joints occur in the substrate. Use Clark Dietrich #40 2-piece expansion joint.
- F. Control joints are needed where the system abuts other materials and where there are changes of the substrate and plane. Use Clark Dietrich #15 control joint.
- G. Apply #66 3/8" casing bead by Clark Dietrich to top and bottom of walls, windows expansion joints and other openings.
- H. Apply #1A corner bead by Clark Dietrich to corners.
- I. #15 control joint is surface mounted within the area to create panels.
- J. All vertical joints must be continuous, with breaks occurring at the horizontal joint (T- intersections).
- K. Do not overlap accessory joints. Set each accessory butt joint in silicone sealant.
- L. Self-Furred 2.5 lath to be installed perpendicular to framing members.
- M. Overlap lath ½ inch on the long dimension (side lap) and 1 inch on the end lap.
- N. Wire tie overlapping lath between framing members 9" on center.
- O. When fastening lath engage three strands of lath with each fastener.
- P. Insert table fastener layout table from Clark Dietrich here.

#### 3.3 APPLICATION

## A. Mixing

1. Mechanically mix using a low speed drill (400 to 600 rpm) or mortar mixer.



- Pour 4 quarts of potable water into a clean mixing vessel. Add 1 quart of K-88 Admix.
- 3. Slowly add the entire 50 pound bag of Structural Skin.
- 4. Mix continuously for 3 minutes to a uniform, lump free consistency.
- 5. Add up to 1 pint of additional water.
- 6. Allow to breathe for 1 minute, then remix for 1 minute.
- 7. Do not overmix, this will entrain air and damage the fibers

# B. Application

- 1. Apply Structural Skin (modified with 1 quart of K-88 Admix) with stainless-steel trowel to a thickness sufficient to fully embed the metal lath.
- 2. Allow to set to a thumbprint.
- 3. Apply an additional coat at 1/16 1/8 inches to achieve a level plane, where desirable.
- 4. Cover the entire wall panel without stopping. Trowel smooth to provide a surface receptive to the finish coat.
- 5. Trowel with a vertical motion and finish with a horizontal motion.
- 6. Alternate base coat is Conproco One Coat.

# SECTION 099653 - ELASTOMERIC COATINGS

## PART 1 GENERAL

#### 1.1 SUMMARY

Provide labor, materials, equipment and supervision necessary to complete the application of elastomeric coating to existing substrate.

## 1.2 SYSTEM DESCRIPTION

The products shall meet or exceed the following performance requirements:

Grade		Smooth	Sanded
Physical State and Appearance		Liquid-tinted-thick paint	Liquid-tinted-thick paint
Base		Aqueous	Aqueous
Polymer		100 percent acrylic	100 percent acrylic
рН		9.5-10.5	9.5-10.5
Percent solids by weight		54 percent	62 percent
Percent solids by volume	ASTM D2697	46 percent	-
Viscosity	ASTM D562	Less than 142 KU	Less than 142 KU



Flame spread	ASTM E84	Zero	Zero
Density of liquid coatings	<b>ASTM D1475</b>	10.6 pounds per gallon	11.2 pounds per gallon
Tear Resistance	<b>ASTM D6083</b>	80 pounds per inch	28 pounds per inch
Moisture vapor transmission	ASTM D1653	16.2 perms at 15 mils DFT	39 perms at 15 mils
Method B wet cup			DFT
Accelerated weathering-QUV	ASTM G154	2000 hours-UV-B cycled	Same data as for
		with condensation-no	smooth
		effect	
Resistance to chemicals	ASTM D1308	Excellent	Excellent
Water penetration and leakage	ASTM E514	100 percent reduction	100 percent reduction
Wind driven rain	Fed. Spec TT-C-	Pass	Pass
	555B		
Wind driven rain	ASTM D6904	Pass	-
Dirt pick-up	ASTM D3719	Excellent	Excellent
Low temperature flexibility	ASTM D522	Pass	Pass
Low temperature flexibility	ASTM D522	Pass	Pass
after 1000 hours			
Tensile	ASTM D412	270 psi	-
Elongation	ASTM D412	485 percent	-
Crack Bridging	ASTM C1305	No Cracking	-

#### 1.3 SUBMITTALS

- A. Manufacturer's current product data bulletin.
- B. The trained applicator shall prepare a test area on the structure as a submittal for approval of proper application and adhesion.
- C. The trained applicator shall submit to the specifier a list of five projects that he has completed within the last five years, exhibiting the applicator's skills. The list shall include project name, location, and description of work and completion date.

#### 1.4 QUALITY ASSURANCE

Products shall be installed by a trained applicator with a minimum of five years' experience and meet the requirements of the specifier.

## 1.5 DELIVERY, STORAGE & HANDLING

- A. Deliver all products in original labeled, sealed, and undamaged container.
- B. Store all products in accordance with manufacturer's printed instructions.
- C. Handle products in accordance with manufacturer's printed instructions.

# 1.6.1 PROJECT/SITE CONDITIONS

A. All products shall be applied at substrate and ambient temperatures of 45 degrees F or above. A minimum temperature of 45 degrees F shall be maintained 24 hours after completion of work.



- B. Protect products from moisture for a period of 24 hours after application.
- C. Protect products from wind driven rain for 72 hours after application.
- D. Do not apply products to frozen surfaces.

## 1.7 SCHEDULING

The work requires close coordination with related sections and trades.

## PART 2 PRODUCTS

## 2.1 MANUFACTURERS

The following manufacturers are approved for the project.

Conproco

#### 2.2.1 MATERIALS

Α.	Conpro Lastic: A waterproof elastomeric crack bridging, anti-carbonation
	membrane for vertical exterior surfaces.

B.	Color:	 	
C.	Texture:		

## PART 3 EXECUTION

#### 3.1 EXAMINATION

- A. Installation shall be performed strictly in accordance with manufacturer's current product data bulletin.
- B. Examine substrates and conditions under which materials will be installed. Do not proceed with installation until unsatisfactory conditions are corrected.
- C. Coordinate installation with adjacent work to ensure proper sequence of construction. Protect adjacent areas and landscaping from contact due to mixing, handling, and application of materials.

# 3.2 SURFACE PREPARATION

- A. Prior to application of the product, inspect the substrate for proper cleaning and treatment of structural cracks, texture differences, damage, etc. Work shall not proceed until unsatisfactory conditions are corrected.
- B. Surfaces must be clean, sound, and free from any loose paint, chalk, rust, grease, dirt, laitance, efflorescence, mortar droppings, mold, mildew or other such foreign materials that may inhibit adhesion. Surface may be cleaned by mechanical or chemical methods that will not inhibit bond of coatings and sealants to substrate. Allow substrate to dry completely before proceeding.
- C. Small voids, air pockets and static cracks up to 1/16 inch should be filled with Conproco Plastermix.



- D For cracks greater than 1/16 inch, rout and caulk with a urethane sealant approved by the specifier.
- E. Remove and replace all defective or existing sealants and control joints. Sealant shall be approved by the specifier. Work shall not proceed until inspected.

## 3.3 APPLICATION

# A. Mixing

- 1. Mix with low-speed (400-600 rpm) mixer until homogeneous. Do not use high-speed mixer or over mix.
- 2. Mix pails from different batches when an entire surface is visible.

## B. Application

- 1. If rolling, apply with a heavy nap roller (1 1/4-inch synthetic nap roller). Use a roller screen to provide an even amount of Lastic on the roller.
- 2. If spraying smooth textured Conpro Lastic, use a commercial airless paint sprayer (Graco 3500, President or Bulldog with a 0.041 to 0.047 tip). Back roll for a pinhole free texture.
- 3. If spraying sanded textured Conpro Lastic, use a spray gun designed for heavy bodied fluids, such as a Binks model 7E2 (with a fluid inlet of 3/4 inch NPS (m), or a Binks model 7D (with a fluid inlet of 1/2 inch NPS (m). Back roll for a pinhole free texture.
- Apply to a minimum of 15 mils. wet film thickness per coat to achieve a continuous pinhole free membrane. Back roll material to eliminate pinholes, if necessary.
- 5. The Conpro Lastic shall be applied in one continuous operation, maintaining a wet edge. Terminate coats at a natural break such as an outside or inside corner if one continuous coat is not possible.
- 6. Sufficient manpower, scaffolding and equipment shall be provided to ensure a continuous and uniform application.
- 7. Test the mockup to determine coverage rate and adhesion at 3 locations. Test adhesion using ASTM D3359 procedure after the coating has cured for at least 7 days by using a knife to cut full depth a crosshatch pattern (#) of 8 by 8 squares of 0.25 inches by 0.25 inches. Firmly adhere industry standard duct tape over the entire crosshatched mockup and let tape adhere to coating for at least 10 minutes. Pull duct tape off mockup in uniform motion over 1 to 2 seconds. If the coating comes off over 25 percent of the squares on 1 or more mockups, the adhesion is not adequate. If the adhesion is not adequate, modify coverage rates and preparations to pass adhesion test. If the adhesion is still not adequate apply Conpro Point 5 bonding primer to a new area and then reapply the coating and retest.

# C. Curing

Protect from moisture for 24 hours and wind driven rain for 72 hours.



# 3.3 CLEANING

- A. Material left over at the job site by the approved applicator shall be removed.
- B. All adjacent surfaces and materials shall be cleaned with water before material dries.
- C. Cured material must be removed mechanically.

END OF SECTION 099726