Structural Skin®

Trowel or spray applied, fiber reinforced, cement based structural coating. Refer to Conproco Exterior Wall Systems.

WHERE TO USE

Base coating for exterior wall systems over block, concrete, brick, exterior sheathing and plywood.

Performance Characteristics

Waterproof barrier

- Passes ASTM E514. Anti-carbonation barrier
- Mitigates carbonation of concrete.

Durable

- Resistant to weathering action, excellent freeze/thaw stability and abrasion resistance.

Breathability

- Allows moisture to diffuse, preventing damage from moisture build-up in wall system.

Structural

- When applied to both sides of dry stacked concrete block, forms a structural wall system. IBC approved.

Smooth finish

- Ready for roller, spray and trowel applied decorative coatings such as Conpro Lastic or Conpro Color Coat.

Surface Preparation

- Remove loose and deteriorated material, laitance, dirt, dust, oil and any surface contaminants that will inhibit proper bond.
- Repair spalled areas, static cracks and voids with Conpro Set or Structural Skin.
- Substrate should have open-pored and textured surface.
- Apply Conpro Start where a consolidant is of benefit.
- Saturate substrate with clean water, (saturated surface dry/SSD). Wall should be wet when Structural Skin is applied.
- For best results on concrete grind or abrasive blast (CSP 3). Refer to ICRI Surface Preparation Guide 03732 for information about Concrete Surface Preparation (CSP).
- Refer to Conproco Exterior Wall Systems literature for preparation over substrates other than concrete and concrete block.

Priming

- No priming is required under normal circumstances.

Mixing

- Mechanically mix using a low speed drill (400 - 600 rpm) and mixing paddle or mortar mixer.
- Pour 5 quarts of potable water into a clean mixing vessel and slowly add all of the powder.
- Mix continuously for 3 minutes to a uniform, lump-free consistency.
- Add up to 1 pint of additional water if needed.
- Allow to "breathe" for 1 minute and remix for 1 minute. This will improve workability and open time.
- Do not over mix, as this will entrain air and cause damage to the glass fibers.

Application

Mortarless concrete block wall system

- At the time of application, surfaces should be saturated surface dry (SSD) but hold no standing water.
- Concrete block must be butt tight and wall plumb and level.
- Trowel or spray apply material to a uniform minimum of 1/8 inch.
- Apply with a vertical motion and finish with a horizontal motion.
- Material must be applied so that both sides of the wall have a uniform, continuous 1/8 inch coating.

Conproco Impact Wall System (existing block, brick and concrete)

- At the time of application, surfaces should be saturated surface dry (SSD) but hold no standing water.
- Add 1quart of K-88 Admix (replacing 1 quart water) per bag of material.
- Trowel or spray apply material to a uniform minimum of 1/8 inch.
- Apply additional coat at 1/16 - 1/8 inch to achieve a level plane where desirable.
- Trowel on with a vertical motion and finish with a horizontal motion.

Conproco Impact RF Wall System (reinforced fabric on approved sheathing)

- Board must comply with applicable standards (ASTM C79, and ASTM C1177) and be firmly attached to substrate in accordance with applicable building codes.
- Place trim accessories (expansion joints, corner bead, etc.) as specified.
- Mechanically fasten the specified reinforcing mesh to the substrate and within the confines of the panels created by the trim accessories. Make sure to overlap the flanges of the trim accessories.
- Add 2 quarts of K-88 Admix (replacing 2 quarts water) per bag of material.
- Trowel or spray apply material to a uniform minimum of 1/8 inch.
- Embed specified mesh fabric into material.
- Apply additional coat at 1/16 - 1/8 inch to completely cover mesh and achieve a level plane.

Conproco Impact RM Wall System (reinforced metal lath)

- Plywood and OSB must be APA Exterior rated and be firmly attached to substrate in accordance with applicable building codes.
- Masonry and concrete walls must be structurally sound.
- Place trim accessories (expansion joints, corner bead, etc.) as specified.
- Mechanically fasten self-furring diamond mesh metal lath (complying with ASTM C841 and ASTM C847) within the confines of the panels created by the trim accessories. Make sure to overlap the flanges of the trim accessories.
- Add 2 quarts of K-88 Admix (replacing 2 quarts water) per bag of material.
- Trowel or spray apply material to a uniform minimum of 3/16 inch, to completely cover the lath.

Structural Skin®

Curing
- Keep damp with a fine mist of water for 24 hours.
- Protect from direct sunlight, wind, rain and frost during curing period.

Clean Up
- Clean tools and equipment with water immediately after use.
- Cured material must be removed mechanically.

Coverage/Yield
- 45 ft.^{2}/50 lbs. @ 1/8 inch.

Product Handling
Packaging
- 50 lbs. paper bags.

Shelf Life
- 12 months when properly stored.

Storage
- Transport and store in cool, clean, dry conditions in unopened containers.
- High temperature or high humidity will reduce shelf life.

Limitations
- Do not apply unless substrate and ambient temperature can be maintained at a minimum of 40°F for 24 hours. Refer to ACI Cold Weather Application Guidelines.
- Cold mixing water and low temperature will retard set. Hot water and high temperature will accelerate set.
- Protect application from precipitation and high wind for at least 8 hours.
- Do not add more water than specified.
- Do not re-temper as this will damage the fiber glass reinforcing.
- Avoid overworking material during placement.
- Over mixing will cause damage to the fiber glass reinforcing.

Health and Safety
- Product is alkaline.
- Do not ingest.
- Avoid breathing dust.
- Avoid contact with skin and eyes.
- Refer to Safety Data Sheet (SDS) for additional information.

First Aid
- In case of skin contact, wash thoroughly with soap and water.
- For eye contact, flush immediately with a high volume of water for at least 15 minutes and contact a medical professional.
- For respiratory problems, remove person to fresh air.

Disposal
- Dispose of material in accordance with local, state and federal regulations.

Technical Data

Physical state and appearance		Gray or white powder		
Base		Portland cement		
pH	Wet mix	>12		
Water/cement ratio		0.6 – 0.49 with 2 quarts K-88 Admix		
Standard Specification for Packaged, Dry, Combined Materials for Surface Bonding Mortar	ASTM C887	Complies		
Setting time by vicat needle	ASTM C191	Initial 60 minutes – Final 270 minutes		
Durometer hardness	ASTM D2240	60 - 70		
Water penetration and leakage	ASTM E514	100% reduction in leakage		
Carbon-arc weathering	ASTM G152	2000 hours – no effect		
Length change	ASTM C157	300 µstrains @ 28 days		
		7 days	**14 Days**	**28 days**
Compressive strength – psi	ASTM C109	4150	4400	5100
With 2 quarts of K-88 Admix		5000	5290	6300
Flexural strength – 3 point loading – psi	ASTM C78			1100
Tensile strength – psi	ASTM C307	400	430	430
With 2 quarts of K-88 Admix		600	600	635
Allowable design stress based on gross area of the CMU (IBC) for mortar-less wall construction				
Compressive stress – psi				
Standard block		45		
Ground block		85		
Shear Stress		10		
Tensile stress in flexure, vertical span - psi		18		

FOR PROFESSIONAL USE ONLY

Conproco warrants this product for one year from the date of manufacture to be free from manufacturing defects and to meet the technical properties on the current technical data sheet if used as directed within shelf life. User determines suitability of product for use and assumes all risks. Buyer's sole remedy shall be limited to the purchase price or replacement of product, exclusive of labor or cost of labor. July 5, 2019.

NO OTHER WARRANTIES EXPRESSED OR IMPLIED SHALL APPLY, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. CONPROCO CORP SHALL NOT BE LIABLE UPON ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES.

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