CONPROCO® CONPRO SET

Cementitious repair mortar

1. PRODUCT NAME

Tenon® Conproco® Conpro Set

2. MANUFACTURER

TCC Materials®
2025 Centre Pointe Blvd.
Mendota Heights, MN 55120 USA
Phone: 651.688.9116
Web: tccmaterials.com

3. PRODUCT DESCRIPTION

Tenon® Conproco® Conpro Set is a trowel applied, single component, polymer modified cementitious repair mortar with ECB-Tech corrosion protection.

Features and Benefits

- Maintains integrity of repair, resists cracking
- Prevents delamination due to temperature change
- Corrosion protection - Protects reinforcing steel in repair zone and suppresses ring anode effect
- Resistant to weathering action, excellent freeze/thaw stability and abrasion resistance
- Resistant to deicing salts, carbonation, chloride, and chemical attack
- Recreate sharp edges and architectural details
- Single component - easy to batch in less than full bag quantities

When/Where to Use

- Structural & protective repairs to vertical, overhead & horizontal concrete

4. TECHNICAL DATA

Typical Values • Conproco Conpro Set	
Physical State & Appearance	Fine, gray powder
Base	Portland cement
pH (wet mix)	>12
Water / Cement Ratio	0.43
Density (wet mix)	130 lbs. / ft.^{3}
Durometer Hardness (ASTM D2240)	80 - 85%
% Air (wet mix)	5.3%
Resistance to Deicing Chemicals Under Freeze/Thaw (ASTM C672)	Passed 50 cycles - visual rating 0
Length Change (ASTM C157)	500 µstrains @ 28 days
Modulus of Elasticity (ASTM C469)	2.7 x 10^6 Extended*: 3.2 x 10^6
Slant Shear Bond Strength—Latex (ASTM C1042)	1,605 psi - 14 days
Compressive Strength - psi (ASTM C109)	1 day: 3,000 psi 7 days: 5,000 psi 28 days: 5,900
Flexural Strength - psi (ASTM C348)	1 day: 590 psi 7 days: 845 psi 14 days: 880 psi 28 days: 930 psi

*Extend with 30 lbs. of $^3/_8$ inch aggregate per 50 lbs. of material

Typical Values • Conpro Set cont.	
Tensile Strength - psi (ASTM C307)	1 day: 360 psi 7 days: 550 psi 14 days: 600 psi 28 days: 680 psi
Tensile Bond Strength - psi (ASTM C932)	7 days: 210 psi 14 days: 250 psi 28 days: 400 psi
Splitting Tensile Strength - Cylinders - psi (ASTM C496)	28 days: 660 psi

Available Sizes

- 50 lb. bag (BOM# 115249)
- 10 lb. pail (BOM# 115425)
- 50 lb. pail (BOM# 115220)

Coverage

- 0.42 ft.^{3}/50 lbs.
- 0.65 ft.^{3} when extended with 30 lbs. of $^3/_8$ inch aggregate.

5. INSTALLATION

Preparation

Read all directions before starting work. Proper surface preparation is crucial to achieving a successful application.

1. Remove loose and deteriorated material, laitance, dirt, dust, oil and any surface contaminants that will inhibit proper bond.
2. Saw cut edges with a diamond blade at a 90° angle to eliminate feather edging. Avoid polishing the edges, as this will inhibit bond.
3. Avoid bruising or micro cracking during surface preparation. Refer to ICRI Surface Preparation Guide 03732.
4. Repair zone must be a minimum of $^3/_8$ inch deep, of simple geometry, with no complex edge conditions.
5. Avoid long narrow repairs; these have a greater tendency to crack.
6. Apply Tenon Conproco Conpro Start where a consolidant is of benefit (soft, powdery surfaces).
7. Saturate substrate with clean water, (saturated surface dry/SSD), with no standing water during Priming or Application.
8. Remove concrete from corroded steel and several inches beyond to expose non-corroded steel.
9. Provide a ¾ inch clearance between the concrete and steel.
10. Damaged reinforcing steel should be inspected by a qualified engineer and appropriate action taken.

Priming

Concrete

1. Prime the prepared substrate including all edges with a slurry coat of the repair mortar. Work the slurry into the substrate to ensure intimate contact and establish bond. The repair material must be applied while slurry is wet. If the slurry dries, remove and recoat.
2. Alternatively, use Tenon Conproco Conpro Primer or ECB as a bonding primer.
3. Refer to the individual product technical data bulletin for information.

Reinforcing Steel

1. Remove all scaling rust from reinforcing steel.
2. Apply ECB anti-corrosion coating.

Note: It is the responsibility of the installer/applicator to ensure the suitability of the product for its intended use.

Mixing

1. Mechanically mix using a low speed drill (400 - 600 rpm) and mixing paddle or mortar mixer.
2. Pour 3½ quarts of potable water into a clean mixing vessel and slowly add all 50 lbs. of material.
3. Maintain the same water to Conproco Conpro Set ratio when mixing less than full 50 lbs. units.
4. Proper mix ratio is 4 ¾ parts powder to 1 part water.
5. Mix continuously for 3 minutes to a uniform, lump-free, stiff mortar consistency.
6. Add up to 1 pint of additional water if needed.
7. Allow to "breathe" for 1 minute and remix for 1 minute. This will improve workability and open time.
8. Mix only as much material as can be placed in 10-15 minutes.
9. Do not over mix, as this will entrain excess air.
10. Do not re-temper, this will damage the cross-linking of the polymer and cause cracking and loss of bond.

Application

1. At the time of application, surfaces should be saturated surface dry (SSD) but hold no standing water.
2. Follow instructions for Priming.
3. Force the material against the edges of the repair, working toward the center.
4. Material may be applied in multiple lifts of not less than $^{3}/_{8}$ inch and no greater than 2 inches.
5. Consolidate each lift and allow to stiffen to thumb-print hard before continuing.
6. Scratch (cross-hatch) each lift to prepare surface for subsequent lift.
7. Over-build final lift by 1/4 inch and allow to take initial set.
8. Shave to final form with trowel edge up to 2 hours after application.
9. Finish with a sponge float or trowel.
10. Do not overwork the finish.
11. For applications over 2 inches add a maximum of 30 lbs. of $^{3}/_{8}$ inch aggregate per 50 lb. bag. Aggregate must be non-reactive, low absorption, graded and high density.

Curing

Dampen the repair with a fine mist of water for 24 hours or moist cure with wet burlap and polyethylene. Protect repair 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.

Limitations

1. 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.
2. Hot water and high temperature will accelerate set.
3. Protect application from precipitation and high wind for at least 8 hours.
4. Do not add more water than specified – this will lower strengths and cause shrinkage cracking.
5. Do not re-temper polymer modified materials.
6. Avoid overworking material during placement and finishing – this will produce surface (map) cracking.
7. Surface whitening can occur when polyethylene is in contact with the material during the first 24 hours of curing.
8. Do not ingest.
9. Avoid breathing dust.
10. Avoid contact with skin & eyes.

Safety

READ THE SAFETY DATA SHEET (SDS) BEFORE USING THIS PRODUCT. SDS information is available on our website: tccmaterials.com

- 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.

Cautions

Read complete cautionary information printed on product container prior to use. This Product Data Sheet has been prepared in good faith on the basis of information available at the time of publication. It is intended to provide users with information about and guidelines for the proper use and application of the covered Tenon brand product(s) under normal environmental and working conditions. Because each project is different, TCC Materials cannot be responsible for the consequences of variations in such conditions, or for unforeseen conditions.

6. AVAILABILITY

To locate Tenon products in your area, please contact:
Phone: 651.688.9116
Email: info@tccmaterials.com

7. WARRANTY

Seller warrants that its product will conform to and perform in accordance with the product specifications. The foregoing warranty is in lieu of all other warranties, expressed or implied, including, but not limited to those concerning merchantability and fitness for a particular purpose. Because of the difficulty in ascertaining and measuring damages hereunder, it is agreed that Seller's liability to the Buyer shall not exceed the total amount billed and billable to the Buyer for the product hereunder.

Shelf Life	18 months in unopened containers.
Storage Conditions	Transport and store in cool, clean, dry conditions in unopened containers. High temperature or high humidity will reduce shelf life.
Color	Gray

KEEP PRODUCT IN CONTAINER FROM FREEZING

WARNING: INJURIOUS TO EYES

KEEP OUT OF REACH OF CHILDREN

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