

# **ISR AG**

## Durable, crack resistant repair material

## 1. PRODUCT NAME

Conproco® ISR AG

### 2. MANUFACTURER

TCC Materials® 2025 Centre Pointe Blvd. Mendota Heights, MN 55120 USA

Phone: 1.651.688.9116 Web: tccmaterials.com

### 3. PRODUCT DESCRIPTION

Conproco ISR AG is a durable, crack resistant repair material utilizing ISR (Internal Stress Relief) technology with ECB-Tech corrosion protection.

#### **Features and Benefits**

- Pumpable sustainable green technology; contains significant concentrations of both pre- & post-consumer recycled content
- Low shrinkage; maintains integrity of repair, resists cracking
- Thermal compatibility; prevents delamination due to temperature change
- ECB-Tech corrosion protection protects reinforcing steel in repair zone & suppresses ring anode effect
- Resistant to weathering action, excellent freeze/thaw stability and abrasion resistance
- Resistant to deicing salts, carbonation, chloride & chemical attack
- · Dimensionally stable
- Ideal for large areas
- · Abrasion resistant
- · Hard, durable surface for long term wear

### When/Where to Use

- Parking
- Plaza decks
- Balconies
- Marine structures

### 4. TECHNICAL DATA

Typical Values • ISR AG	
Physical State & Appearance	Dry powder with aggregate
Base	Portland Cement
Aggregate Type	Sharp quartz silica with 3/8 inch pea stone
Slump (ASTM C143)	8 - 9" @ 3.75 quarts of water
Length Change (ASTM C157)	<500 µstrains @ 28 days
Restrained Shrinkage Cracking (ASTM C1581)	28 days: Greater than or equal to 475 psi
Chloride Ion Penetration (ASTM C1202)	No cracking after 256 days
Short-term Bond Strength (ICRI 03739*)	400 psi
Scaling Resistance (Rating 0 - 1) (ASTM C672)	Weight loss after 50 cycles (kg/m²) .04

Typical Values • ISR AG cont.		
Freeze/Thaw Resistance - Procedure A (ASTM C666)	Weight gain (%) 0. Expansion (%) 0. Durability Factor DF (%) 99.	
Compressive Strength - psi (ASTM C39)	1 day: 1,500 psi 7 days: 4,230 psi 28 days 5,325 psi	
Flexural Strength - psi (ASTM C78)	1 day: 382 psi 7 days: 516 psi 28 days 662 psi	
Splitting Tensile Strength - psi (ASTM 496/C496M)	1 day: 182 psi 7 days: 299 psi 28 days 463 psi	
Direct Tensile Strength - psi (CRD C164)	7 days: 293 psi 28 days 420 psi	
Modulus of Elasticity (10 <sup>6</sup> psi/ GPa) (ASTM C469)	1 day: 1.96 / 13.5 7 days: 2.64 / 18.2 28 days 3.07 / 21.2	
Compressive Creep (10 <sup>6</sup> psi) (ASTM C512)	7 days: 0.64 28 days 0.97	

#### **Available Sizes**

• 60 lb. bag (BOM #115252)

### Coverage

• 0.49 ft3 / 60 lb. bag

### 5. INSTALLATION

## Preparation

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

- 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  $90^{\circ}$  angle to eliminate feather edging. Avoid polishing the edges as this will inhibit bond.
- Avoid bruising or micro cracking during surface preparation. Refer to ICRI Surface Preparation Guide 03732.
- 4. Repair zone must be a minimum of ¾ inch deep, of simple geometry, with no complex edge conditions.
- 5. Avoid long narrow repairs; these have a tendency to crack.
- Saturate substrate with clean water, (saturated surface dry/ SSD), with no standing water during application.
- 7. Remove concrete from corroded steel and several inches beyond to expose non-corroded steel.
- 8. Provide a 3/4-inch clearance between the concrete and steel.
- 9. Damaged reinforcing steel should be inspected by a qualified engineer and appropriate action taken.

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

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## **ISR AG**

### Mixing

- Must be mechanically mixed using a mortar mixer.
- Pour 3 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 additional water to increase slump and flowability for form and pour applications. Do not exceed 3.75 quarts of water per 60 lbs. of material. Proper mix ratio is 5 parts powder to 1 part water.
- 3.75 quarts of water will produce an 8-inch slump.
- Allow to "breathe" for 1 minute.
- · Do not overmix, this will entrain excess air.
- For hand mixing applications, do not exceed 3 quarts of water per bag. Proper mix ratio is 6 parts powder to 1 part water (hand mix ratio).

### **Application**

- At the time of application, surfaces should be saturated surface dry (SSD) but hold no standing water.
- 2. Form applications must be consolidated with vibrator.
- 3. Place material continuously to break points.
- 4. Finish with a magnesium float or trowel.
- Avoid overworking material during placement and finishing this will produce surface (map) cracking.

### 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

- 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.
- 2. Cold mixing water and low temperature will retard set. Hot water and high temperature will accelerate set.
- 3. Protect application from precipitation and high wind for at least 8 hours.
- Do not add more water than specified, this will lower strengths and cause shrinkage cracking.
- Avoid overworking material during placement and finishing this will produce surface (map) cracking.
- 6. Do not ingest.
- 7. Avoid breathing dust.
- 8. 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

- If swallowed, contact a medical professional immediately
- Do not induce vomiting unless directed to do so by a qualified medical professional
- 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 Conproco 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 Conproco products in your area, please contact:

Phone: 1.651.688.9116
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	12 months when properly stored	
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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