

EMACO[®] CP INTACT GALVANIC ANODES

Embedded galvanic anode for the protection of reinforcing steel

DESCRIPTION

Emaco CP Intact Galvanic Anodes are engineered discrete zinc anodes encased in a proprietary mortar. Integral galvanized tie wires permit easy connection to concrete reinforcement. As a key component of a complete concrete repair strategy, the sacrificial zinc core generates a small electrical current as it is consumed, protecting the reinforcing steel from accelerated corrosion.

RECOMMENDED FOR

APPLICATION

- Where reinforced structures will be repaired
- Where chlorides are present in the structure
- Wherever corrosion of reinforcing steel is possible
- In post-tensioned, prestressed, or conventionally reinforced structures

LOCATION

- Interior or exterior

SUBSTRATE

- Concrete or masonry

FEATURES AND BENEFITS

- **Chelation Driven System** - Prevents re-passivation of the zinc; Optimizes service life
- **Lower pH mortar** - Non-caustic; Safe to handle
- **High grade ASTM B418 type II zinc alloy** - Prolonged shelf life; Reduced tendency toward degradation
- **Pre-twisted tie wires** - Proper stand-off from reinforcing steel; Ensures optimal current throw; Fast, easy installation
- **Increased zinc surface area** - Optimizes anode performance; Extends service life; up to 50% more efficient than other anodes of same zinc weight
- **Generates small current as it deteriorates, to protect reinforcing steel** - Extends service life and reduces maintenance costs
- **Enhanced elimination of reaction by products** - Anode reactivates after wet/dry cycles; Longer service life
- **Not affected by carbonation or auto-corrosion** - Greater shelf life

TYPICAL PROPERTY DATA

Property	Emaco CP Intact 65G	Emaco CP Intact 105G	Emaco CP Intact 150G
Color	Green	Blue	Orange
Packaging (anodes/box)	30	24	24
Total anode weight	240g	340g	370g
Zinc alloy	ASTM B418, Type II	ASTM B418, Type II	ASTM B418, Type II
Zinc content	65g	105g	150g

Zinc surface area	133 cm ²	258 cm ²	279 cm ²
External surface area	219 cm ²	258 cm ²	258 cm ²
Auto-corrosion	< 0.01 mm/yr	< 0.01 mm/yr	< 0.01 mm/yr
Tie wire composition	Galvanized, 16 gauge steel	Galvanized, 16 gauge steel	Galvanized, 16 gauge steel

APPLICATION

1. Surface Preparation: All loose and spalled concrete should be removed in accordance with conventional repair guidelines. **Emaco CP Intact Anode** positioning should be considered when removing the existing concrete.

2. Positioning: In most applications, the anodes should be positioned at the perimeter of the repair and on plane with the reinforcing steel to provide a proper level of cover. Anodes must be positioned so that the entire anode and the wire connections to the reinforcing steel are totally covered by the repair mortar once the repair is complete.

3. Preparation: For correct electrical connection and anode function, only structures using uncoated reinforcing steel are suitable; the surface of the reinforcing steel should be untreated and cleaned to a bright surface condition in areas designated for the connection of **Emaco CP Intact Anodes**. No other pretreatment or post treatment of the steel is necessary or permitted.

Note: Reinforcing steel should be tested for continuity; that is, assuring that the reinforcements are electrically connected by confirming that the DC resistance is $\leq 1\Omega$. Connections to test continuity should be made using traditional techniques such as wire ties or welded bonds. Also, pre-wetting of **Emaco CP Intact Anodes** in clean water prior to encasement is recommended for optimum adhesion of the encasement material.

4. Attaching: Tighten the two pairs of pre-twisted wires by hand around the reinforcing steel in a double wrap pattern to achieve a sound electrical bond (see Photo 1). The pre-twisted wire connectors provide a sound bond, good electrical contact and proper spacing from the reinforcing steel to which the anode is attached. No additional form of attachment or electrical connection is necessary or permitted.

5. Verification: Verify sound electrical connection of the anodes to the reinforcing steel by checking for a DC resistance $\leq 1\Omega$ (see Photo 2).

6. Repair mortar for bedding the anode: Emaco Nanocrete R2, EMACO CP 15 or a suitable Shotpatch grade should be used. Corrosion protection is enhanced with low resistance mixes $\leq 20,000\Omega$ - cm, but mixes should not be selected that exceed 50,000 Ω - cm. High polymer content and silica fume should not be used. Place repair mortars in accordance with datasheet instructions to assure good consolidation.



The Chemical Company

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For Best Performance

- Make certain that the most current versions of the product data sheet and MSDS are being used.
- Proper application is the responsibility of the user. Field visits by BASF personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

YIELD

Consult **Emaco CP Intact** Installation Guide.

PACKAGING

Varies by size. See property chart.

COLOR

Color coded for quick and easy identification. See property chart.

SHELF LIFE

3 years when stored properly

STORAGE

Store in clean, dry conditions

PRECAUTIONS

The cementitious material in **bedding mortar** may cause irritation, avoid contact with eyes and prolonged contact with skin. In case of contact with eyes, immediately flush with water for at least 15 minutes. Call a physician. Wash skin thoroughly after handling product. Keep product out of reach of children.

For the full health and safety hazard information and how to safely handle and use this product, please make sure that you obtain a copy of the BASF Construction Chemicals **Material Safety Data Sheet (MSDS)** from our office or our website.

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STATEMENT OF RESPONSIBILITY

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NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by **BASF** either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not **BASF Construction Chemicals**, are responsible for carrying out procedures appropriate to a specific application.

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