

MasterProtect 8065CP / 8105CP / 8160CP

Embedded galvanic anodes for the protection of reinforcing steel

MATERIAL DESCRIPTION

MasterProtect 8065CP, 8105CP and 8160CP are engineered discrete zinc anodes encased in a proprietary mortar with integral galvanized tie wires for easy connection to concrete reinforcing steel. As a 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.

PRODUCT HIGHLIGHTS

- Lower pH mortar is non-caustic and safer to handle than high-alkali mortars.
- ASTM B418 Type II zinc alloy prolongs shelf life and effectiveness.
- Chelation-driven activation prevents repassivation of zinc core after long periods of inactivity.
- Increased zinc surface area optimizes anode performance; 50% increase in efficiency versus other anodes of similar weight.
- Pre-twisted tie wires ensure proper stand-off from steel for fast, easy installation.
- Enhanced transport of reaction byproducts promotes anode reactivation after wet/dry cycles, prolonging service life.

APPLICATIONS

- Interior and exterior.
- Horizontal, vertical and overhead.
- Above and below grade.
- Corrosion protection of steel-reinforced concrete.
- High-chloride environments, such as bridges, parking structures, piers.

SUBSTRATES

- Steel-reinforced concrete.
- Pre-stressed concrete.
- Post-tensioned concrete.

PACKAGING

MasterProtect 8065CP - 30 anodes/case

MasterProtect 8105CP - 24 anodes/case

MasterProtect 8160CP* - 24 anodes/case

***MasterProtect 8160CP** Anodes are make-to-order items. For lead times and minimum order requirements, contact your Master Builders Solutions sales representative.

COLOUR

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

YIELD

Yield will vary according to specific project requirements. Consult MasterProtect Galvanic Anode Installation Guide or contact Master Builders Solutions Technical Services.

STORAGE

Store in unopened containers in a clean, dry area.

SHELF LIFE

12 years when properly stored.

APPLICATION PROCEDURE

Demolition:

All loose and spalled concrete should be removed in accordance with conventional repair guidelines. Anticipated positioning of anodes should be considered when removing existing concrete.

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 coverage. Anodes must be positioned so that the entire anode and wire connections to the reinforcing steel are completely covered by the encasement material once the repair is complete.

Preparation:

For correct electrical connection and anode function, only structures using black bar reinforcing are suitable; the surface of the reinforcing steel should be untreated and cleaned to a near-white surface condition in areas designated for connection of anodes to the steel. No other pre-treatment or post-treatment of the steel is necessary or permitted.

Reinforcing steel should be tested for continuity; that is, assuring that the reinforcement is electrically connected by confirming the DC resistance is $\leq 1\Omega$. Connections to

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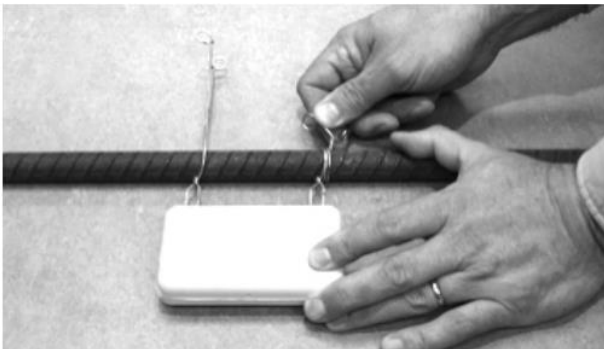
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test continuity should be made using traditional techniques such as wire ties or welding bonds.

Pre-wetting of MasterProtect Galvanic Anodes in clean water prior to encasement is recommended for optimum adhesion of the encasement material.

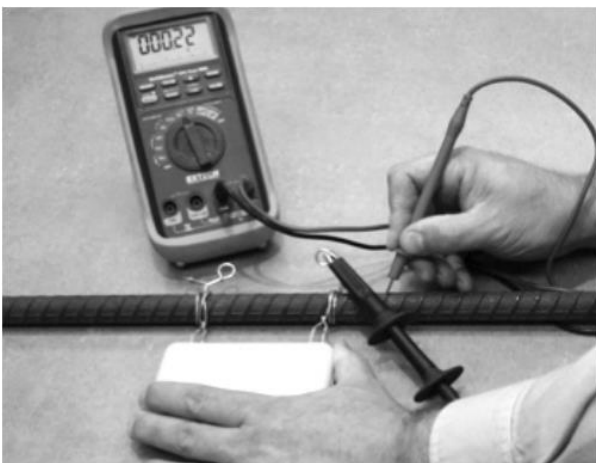
Attachment:

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). The pre-twisted wires 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.



Verification:

Verify sound electrical connection of anodes to reinforcing steel by checking for a DC resistance $\leq 1\Omega$ (See Photo).



Encasement Material:

Conventional, commercially available encasement material should be used. Corrosion protection is enhanced with low-resistance mixes ($\leq 20,000 \Omega\text{-cm}$), but mixes should not be selected that exceed $50,000 \Omega\text{-cm}$. High polymer content and silica fume should not be used. Place encasement materials in accordance with conventional techniques to assure good consolidation.

FOR BEST PERFORMANCE

- When repairing concrete incorporating MasterProtect Galvanic Anodes, make certain to use a compatible repair mortar. Suitable repair products have a resistivity of less than $20,000 \Omega\text{-cm}$. Higher resistivity materials can be used. Contact Master Builders Solutions' Technical Services for additional information.
- For professional use only; not for sale to or use by the general public.
- Make certain the most current versions of product data sheet and SDS are being used; call Customer Service to verify the most current version.
- Proper application is the responsibility of the user. Field visits by Master Builders Solutions personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

HEALTH, SAFETY AND ENVIRONMENTAL

Read, understand and follow all Safety Data Sheets and product label information for this product prior to use. The SDS can be obtained by emailing your local Master Builders Solutions representative.

LIMITED WARRANTY NOTICE

Master Builders Solutions warrants this product to be free from manufacturing defects and to meet the technical properties on the current Technical Data Guide, if used as directed within shelf life. Satisfactory results depend not only on quality products but also upon many factors beyond our control. MASTER BUILDERS SOLUTIONS MAKES NO OTHER WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ITS PRODUCTS. The sole and exclusive remedy of Purchaser for any claim concerning this product, including but not limited to, claims alleging breach of warranty, negligence, strict liability or

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described herein should be verified by testing and carried out by qualified experts.

NOTE

Technical support, where provided, does not constitute supervisory responsibility. For additional information contact your local MB Construction Chemicals Solutions South Africa (Pty) Ltd representative. MB Construction Chemicals Solutions South Africa (Pty) Ltd shall not be liable for technical advice provided. MB Construction Chemicals Solutions South Africa (Pty) Ltd reserves the right to have the true cause of any difficulty determined by accepted test methods. Undertaking such tests is not, and shall not be deemed to be, an admission of liability or an assumption of any risk, loss, damage or liability.

QUALITY AND RESPONSIBLE CARE

All products originating from MB Construction Chemicals Solutions South Africa (Pty) Ltd are manufactured under a management system independently certified to conform to the requirements of the quality standards ISO 9001, environmental and occupational health and safety standards.

* Properties listed are based on laboratory controlled tests.

TECHNICAL DATA COMPOSITION COMPLIANCES

PROPERTY	MasterProtect 8065CP	MasterProtect 8105CP	MasterProtect 8160CP
Color	Green	Blue	Orange
Packaging	30	24	24
Total Anode Weight	0.24 kg	0.34 kg	0.37 kg
Zinc Alloy	ASTM B 418, Type II	ASTM B 418, Type II	ASTM B 418, Type II
Zinc Content	65 g	105 g	160 g
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	<0.01mm/yr	<0.01mm/yr	<0.01mm/yr
Tie Wire Composition	Galvanized, 16 gauge steel	Galvanized, 16 gauge steel	Galvanized, 16 gauge steel

DISCLAIMER

The technical information and application advice given in this MB Construction Chemicals Solutions South Africa (Pty) Ltd publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.