

# MasterProtect® 810CP

A form and pour flowable mortar, for low resistivity environments

## DESCRIPTION

**MasterProtect 810CP** is a cementitious flowable mortar that is specifically formulated for passive and hybrid anodes used in cathodic protection of reinforced concrete structures and embedding discrete anodes used in impressed current cathodic protection installations. **MasterProtect 810CP** is especially developed for optimum life expectancy of these CP installations.

**MasterProtect 810CP** is a blend of hydraulic cements, selected silica, modifying agents and special additives for pH buffering. When mixed with potable water, **MasterProtect 810CP** forms a flowable mortar with flow characteristics suited for steel congested form and pour applications.

## RECOMMENDED USES

Encapsulating passive and hybrid anode systems and embedding discrete anodes used in impressed current cathodic protection installations.

## FEATURES AND BENEFITS

- **Improved acid resistance compared to normal mortars against the chemicals created at the anode surface** – long life of the anode encasement.
- **Low resistivity** – enhances current flow through anode.
- **Expands during setting** - guarantees good filling of the hole and embedding of the anode.
- **Long open time** – Allows for placing in complex form and pour situations.

## SPECIFICATIONS

|  |                |
|--|----------------|
| Supply form                                    | Powder         |
| Grain size (max)                               | 1.5mm          |
| Water added per bag (20kg)                     | 3.5-3.7 litres |
| Colour   | Grey           |
| Density (mixed)                                | 2.14kg/L       |
| Compressive Strength (@4.2 litres/20kg bag)    |                |
| - 1 day  | 25 MPa         |
| - 7 days                                       | 55 MPa         |
| - 28 days                                      | 65 MPa         |
| Flexural strength 7 days                       | 4 MPa          |
| Electrical Resistivity (Wenner 4 probe method) |                |
| - 7 days                                       | ~10000 Ω.cm    |
| - 28 days                                      | ~31000 Ω.cm    |
| - 56 days                                      | ~36000 Ω.cm    |
| - 90 days                                      | ~39000 Ω.cm    |

## APPLICATION

### Substrate Preparation

Loose particles in the holes should be removed. Slightly dampen the substrate if possible and remove free standing water.

### Mixing

|           |               |
|-----------|---------------|
| Pot life  | ± 60 minutes  |
| Final set | ± 240 minutes |

Approximately 3.6 litres of water per 20kg powder is necessary in order to obtain a free flowing consistency. The water dose can change depending on the ambient temperature but should be kept between the limits of 3.5-3.7 litres clean water per 20 kg powder.

**MasterProtect 810CP** may be mixed mechanically with a birdcage mixer on a drill or for larger pours a suitable grout pump. Gradually blend the powder into clean water. Mix until lump free consistency is obtained. Do not overmix.

### Application

Do not apply **MasterProtect 810CP** to frozen substrates or if ambient temperature is below 5°C or expected to fall below 5°C within 4 hours.

All holes can simply be filled with the material. To assist complete filling of those holes, it can be necessary to move the anodes up and down, in order to release any entrapped air.

## ESTIMATING DATA

A 20kg bag of **MasterProtect 810CP** mixed with 3.6 litres of water yields 11 litres .

| L  | Thickness in mm /m <sup>2</sup> | m <sup>3</sup> | Bags /m <sup>3</sup> | m <sup>2</sup> /mm thickness |
|----|---------------------------------|----------------|----------------------|------------------------------|
| 11 | 11.mm                           | (0.011)        | 91                   | 11.0 m <sup>2</sup>          |

## CURING

**MasterProtect 810CP** is self-curing. In hot, dry or windy environments it can be necessary to cover the material with some wet cloths after the initial set.



We create chemistry

# MasterProtect® 810CP

## CLEANING

**MasterProtect 810CP** is a cementitious product. Tools should be cleaned with water before the material hardens.

## PACKAGING

**MasterProtect 810CP** is available in 20kg moisture resistant paper bags.

## SHELF LIFE

**MasterProtect 810CP** is can be stored in tightly sealed original bags for 12 months if kept dry and at moderate temperature.

## PRECAUTIONS

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 Safety Data Sheet (SDS) from our office or our website.

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### STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this BASF 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.

### 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, are responsible for carrying out procedures appropriate to a specific application.

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