

MasterProtect 810CP

A form and pour flowable mortar, for low resistivity environments

Material 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.

Areas of Application

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

Characteristics 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.

Properties

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.



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Estimating Data

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

L	Thickness in mm /m ²	m ³	Bags /m ³	m ² /mm thickness
11	11.0mm	(0.011)	91	11.0 m ²

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.

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.

Storage & Shelf Life

MasterProtect 810CP 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, make sure that you obtain a copy of the Safety Data Sheet (SDS) from our office or website.

Disclaimer

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STATEMENT OF RESPONSIBILITY

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