# **Ebofix Grout**



Technical Data Sheet

# Cementitious grout used for the installation of Ebonex discrete anodes

#### Uses

Ebofix Grout is a cementitious grout used to install Ebonex discrete anodes and fill the wire chase used to connect invidual anodes and the anode string to the power/monitoring unit.

## **Typical Applications**

- Bridges
- Tunnels
- Car parks
- Reinforced concrete in marine environments

## **Installation Instructions**

#### **Preparation**

Ebonex discrete anodes are installed in pre-drilled holes 4 to 8mm larger than the nominal Ebonex discrete anode diameter and typically no further than 600 mm apart (unless otherwise approved by the Engineer). The holes and Ebonex discrete anodes should be located to minimise their proximity to the steel reinforcement in order to provide an even current distribution to the steel within the local vicinity.

Cut a chase with a minimum depth of 10mm and a width of 8mm into the concrete between the holes. This chase is used to accommodate the titanium feeder wire, interconnecting the Ebonex anodes and the gas-ventilation tubing. A 3mm saw cut can be used if the venting pipes are not interconnected.

Prior to application the holes and chases should be blown or vacuum cleaned of all debris and pre-soaked with water.

#### Mixing

Ebofix Grout should be mixed with a slow speed drill (400/500rpm) and spiral paddle. Place between 6.0 - 8.0 litres of drinking water, depending on required consistency, into a suitable mixing container and add one full 20kg bag of Ebofix Grout and mix for three minutes until fully homogeneous.

### Installation

Standing water should be removed from the hole and the Ebofix Grout injected by hand pump to the rear of the hole to avoid air entrapment, ensuring sufficient is placed to cover the entire length of the active Ebonex discrete anode once installed. The thixotropic nature of Ebofix Grout will prevent significant flow from vertical and overhead holes. Wet each Ebonex anode with clean water, but do not immerse for more than 10 seconds, before gently inserting into the hole. Ensure the vent pipe is unobstructed and that sufficient tail wire remains exposed to enable connection with the feeder wire.

Place the Ebofix Grout within 30 minutes of mixing to gain benefit of the expansion system and allow to cure for a minimum of 24 hours, without physical disturbance. When cured the open end of the gas vent network can be directed to a well-ventilated location.

Connect strings of Ebonex discrete anodes together as recommended by the CP design engineer using coated or non-coated titanium feeder wire and electrical connectors or titanium crimp connectors. All wire jointing requires the use of titanium metal crimps, secured using an appropriate crimping tool. After connections have been made continuity should be tested with a resistance meter. Any reading found to have a resistance >1 Ohm requires re-crimping the connection. When the integrity of the connection is established the tail of each Ebonex discrete anode can be gently bent, thus settling the wire into the chased groove.

The chase is filled with a pre-bagged repair mortar or Ebofix Grout and left for at least 4 days before connecting to the power system.

#### Limitations

Performance of the Ebonex discrete anode is dependent upon the correct design, installation and maintenance of the Cathodic Protection system.

#### Supply

Ebonex discrete anodes are supplied with 500mm tail wire.

| Ebonex<br>Anode Type | Diameter x<br>length (mm) | Material Code |
|----------------------|---------------------------|---------------|
| 10/100               | 10 x 100                  | FC312034-UNIT |
| 10/150               | 10 x 150                  | FC312035-UNIT |
| 18Plus/200           | 18 x 200                  | FC312057-UNIT |
| 18Plus/300           | 18 x 300                  | FC312056-UNIT |

(12mm Plus anode also available on specific request)

| Vector Ebofix Grout 20kg MTO:  | FC312043-20KG             |
|--|---------------------------|
| Vector Ebonex Wire Pack 40m MTO:<br>Titanium feeder wire 40 m x 1.5 mm diame | FC312047-UNIT<br>eter     |
| Vector Ebonex Crimp Pack 80PC MTO: 80 titanium crimps                        | FC312046-UNIT             |
| Vector Ebonex Crimping Tool MTO:<br>Crimping tool plus plattens              | FC312049-UNIT             |
| Vector Ebonex Venting Pack MTO: 20m PVC venting tube plus 40 connecting      | FC312048-UNIT<br>T-pieces |
| Vector Ebonex Connectors MTO: 50 electrical connectors                       | FC312045-UNIT             |

Please note that all above products are Made-to-Order (MTO). Minimum Order Quantities (MOQ), Order Quantity Breaks and Lead Times apply. Please contact Customer Service or your Fosroc representative to place an order.

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# **Storage**

Store both the Ebonex discrete anodes and Ebofix Grout in dry conditions in their original unopened packaging.

Ebofix Grout has a shelf life of 12 months.

#### Important notice

Read this TDS carefully prior to use as application or performance data may change from time to time.

#### Product disclaimer

This Technical Data Sheet (TDS) summarises our best knowledge of the product, including how to use and apply the product based on the information available at the time. You should read this TDS carefully and consider the information in the context of how the product will be used, including in conjunction with any other product and the type of surfaces to, and the manner in which, the product will be applied. Our responsibility for products sold is subject to our standard terms and conditions of sale. Parchem does not accept any liability either directly or indirectly for any losses suffered in connection with the use or application of the product whether or not in accordance with any advice, specification, recommendation or information given by it.



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