



DUVAL MESSIEN

LA MAITRISE DE LA Foudre
HIGH TECH FOR LIGHTNING PROTECTION

01/05

TEREC + DATA SHEET

1. Product and company identification

Product name: TERC +
Use: To prepare ionic enhancement treatment for soil, to improve earthing systems
Presentation: 10 Kg dose
Code: TERC +
Manufacturer: DUVAL MESSIEN S.A.S.
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2. Description and physical properties

Preparation based on silicates and chlorides

Presentation: Solid in granules
Granulometry: 0.85 micro.m at 4 mm
Colour: Grey
Smell: Inodorous
Apparent volumic mass:
- Compressed: 500 to 650 Kg/m³
- Not compressed: 450 to 500 Kg/m³
Solubility in/miscibility with water: partly miscible
pH value: 6.9 – 7.2 1000g/l at 20°C

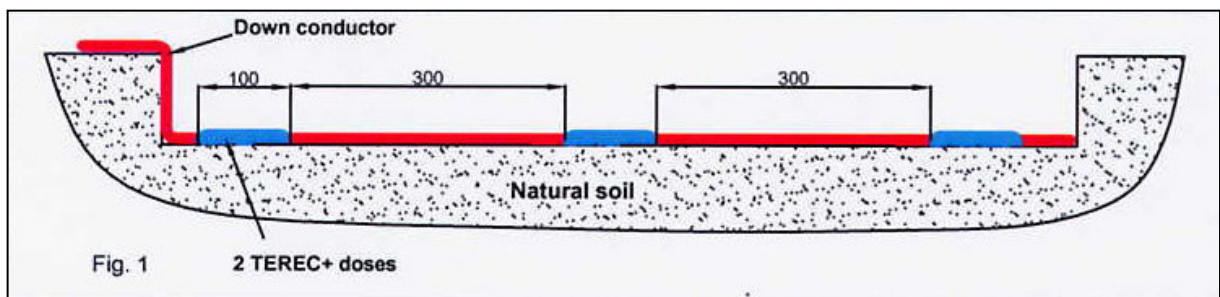
3. Setting up

The product must be hydrated before use, fill the container with 10 liters water before all soil operations.



3.1. Horizontal setting up:

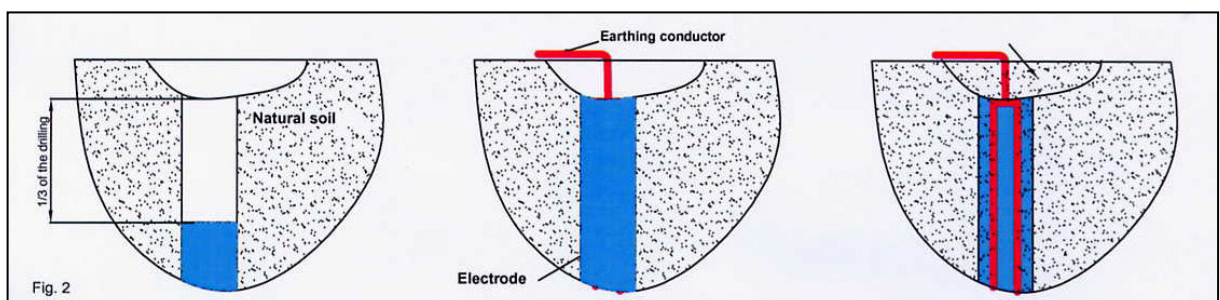
- Build the tranchee(s) of 1 m effective depth.
- Lay the earthing conductor in the tranchee bottom
- Build with the hydrated product a 1 m cord on the electrode (2 doses of 10 Kg) and if this one is longer than 5 m, treat on 1 m each 3 m (Fig. 1)
- Fill up the tranchee(s) on a 0.20 m height, water the treated portions with 20 liters water, compress then block up the remaining height compressing again in order to build again the soil apparent volumic mass.
- Measure the resistance: this one represents only 70% of the optimal value, which is obtained within a period of 2 months.



3.2. Vertical setting up with tubular electrode:

Important: the boring must be stable and without any water entry.

- Fill the drilling until one third of its height, introduce the electrode then fill it inside until the top (fig. 2)
- Shake the electrode in order to let go up all air-pockets, and fill the empty part, if necessary.
- Wait 1 hour, fill again if necessary, and measure the treated soil resistance. As for the horizontal set up, the value will represent only 70% of its optimal value, which is obtained within a period of 2 months.





3.3. Vertical setting with copper/steel rod

- Make a 0.8m x 0.8m x 0.8m hole (scheme 3)
- Put one 10 Kgs dose of watered TERECE+
- Put the first earthing rod in the hole middle and drive it in. Add the additional rods up to the forecasted depth. Water with 20 l. water.
- Fill the ground until 0.4 m of the surface, and compact the earth in order to rebuild the apparent volumic mass of the ground.
- Install the inspection pit and measure the treated earth resistance? As above, the value will only represent 70% of the optimal value, which will be reached within 2 months.

