



תשתיות אנרגיה בע"מ

מתקן אשל הנשיא

שיפור מערכת הגנה

קתודית - 2026

1 :מהדורה
17.07.2026 :תאריך:
170726-2 :סימולין:

עמוד 1 מתוך 6



מפרטי רכישת



Materials specification PEI -ESH-2026-1	Subject	Revision: 1 Date: 17.07.2026
Prepared for: PEI Co.	Anodes, Centralizers & cables for deep grounded	Prepared: I. Kantor

1. General

- 1.1. This Specification pertains to supply of anodes with their cables and centralizers for installation in 2 deep groundbeds (depth of 170 meters).
- 1.2. The diameter of the drill-holes shall be 12.25" - and shall be executed by the use of Bentonite.
- 1.3. The anode area (the active part of the deep groundbeds) shall be backfilled with " LORESCO" carbon backfill type SC3 including an "Allvent" laser perforated vent pipe.

2. Anodes

2.1. Anode material

Grade I Titanium ASTM B 348 coated with electrocatalytic coating of Mixed Metal Oxides Activation: MMO.

2.2. Anode dimensions

Length - 3 meters min., diameter - 25 mm' min., for soil environment in carbonaceous backfill.

2.3. Anode current

Current output per anode in carbonations backfill - 10 amperes.

2.4. Anode lifetime

20 (twenty) years at rated current density

2.3. Anode type: 10C/FW CerAnode Tubular Anode .

2.4. Anode connection type: **APS connected arc-plasma spray**

2.5. Manufacturer: **CerAnode Technologies International manufactures**

3. Anode Cables

- 3.1. One anode shall have its own separate cable.
- 3.2. A cable cross section shall be #6 AWG.
- 3.3. Cable insulation: HALAR / HMWPE
- 3.4. The length of each cable shall be according to table attached to this specification.
- 3.5. Each cable shall have prominent readable markings all along its length.
- 3.6. The manufacturer shall present together with his offer documents about cable and insulation testing.

4. Centralizers.

- 4.1. The centralizers shall be supplied by the anode manufacturer and fit the specific anode.
- 4.2. The centralizers shall fit into the **12.25"** diameter bore-hole.
- 4.3. Together with his offer the manufacturer shall supply a dimension drawing of the centralizer and show how anode shall be attached to the centralizer including written



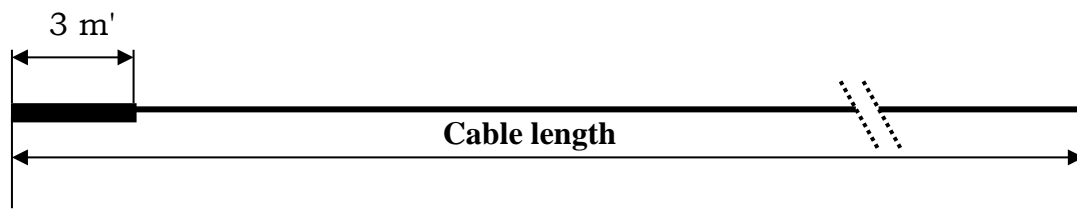
instructions how anodes are to be attached to centralizer- how cables are to be mounted as well as attaching "Ventpipes" to centralizers.

5. Quantities

Herewith a description of items and quantities:

5.1. Anodes and cables

Number	Anode	Cable length	Quantity
1	10C/FW	134 meters	2
2	10C/FW	140 meters	2
3	10C/FW	146 meters	2
4	10C/FW	152 meters	2
5	10C/FW	158 meters	2
6	10C/FW	164 meters	2
7	10C/FW	170 meters	2
8	10C/FW	176 meters	2
9	10C/FW	182 meters	2
10	10C/FW	188 meters	2
11	10C/FW	194 meters	2
12	10C/FW	200 meters	2



5.2. Centralizers – 52 unites.

6. Packing

- 6.1. The anode manufacturer with his offer shall submit a detailed description of materials packing by ship and or by air.
- 6.2 A total weight statement of material plus packing as well as the required volume including packing.



Materials specification PEI -ESH-2026-2	Subject	Revision: 1 Date: 17.07.2026
Prepared for: PEI Co.	Backfilling Material, Vent pipes for Deep Groundbeds	Prepared: I. Kantor

1. General

- 1.1 This specification pertains to the supply of backfill material for 2 deep groundbeds.
- 1.2. Diameter of borehole for deep groundbeds 12.25", depth up to 170 meters, execution by use of Bentonite.
- 1.3. Within these boreholes MMO anodes 3 meter long and 1" diameter shall be installed.

2. Backfill

- 2.1. Carbonatious backfill material "Loresco" type **SC3**.

3. Venting pipes

- 3.1. Vent pipes Loresco "Allvent" laser perforated 1" diameter.
- 3.2. Length of vent pipe 6 meters.
- 3.3. Connection between adjacent vent pipes by bell connection. The price of Bell connection included in the price of the vent pipes.
- 3.4. 1" sch 40 PVC end Caps for hermetic closing of "Allvent" pipe.
- 3.5. Glue for bell connection and end Caps connection

4. Quantities

Here are the names of items and quantities:

- 4.1. Carbon backfill "Loresco" SC3 – **38,000 Lbs.**
- 4.2. PermaPlug "Loresco" – **1,500 Lbs.**
- 4.3. Perforated vent pipes – **228 meters.**
- 4.4. Non perforated vent pipes – **180 meters.**
- 4.5. "1 sch 40 PVC End Caps – **4 units.**
- 4.6. Glue - **2 units.**



Materials specification PEI -ESH-2026-3	Subject	Revision: 1 Date: 17.07.2026
Prepared for: PEI Co.	Purchase Specifications Rope	Prepared: I. Kantor

1. General & Requirements

- 1.1. Rope should be continuous along its entire length, without connections.
- 1.2. Rope must withstand with chlorides.
- 1.3. Technical data:
- 1.4. Quality polyester braided rope.
- 1.5. High resistance to friction and UV rays, low level of hardness, soft and comfortable.
- 1.6. Diameter: 12 mm.
- 1.7. Tearing load: 3,910 kg.
- 1.8. Durable with chlorides
- 1.9. The amount of delivery: **400 meters for 2 deep groundbeds**
- 1.10. Model Recommended: MB12, manufacturer Marlow.