

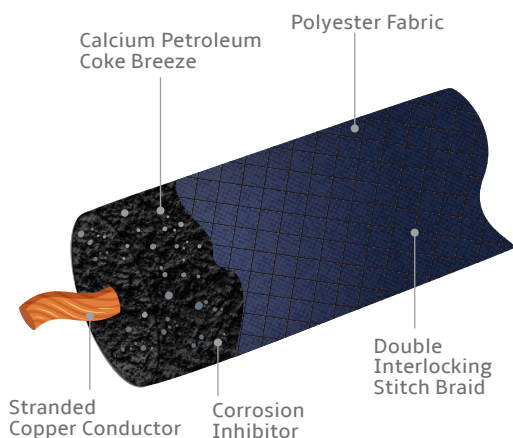
AC MITIGATION ELECTRODE

PRODUCT DATA SHEET

AC Mitigation Electrode

Pipeline corrosion, caused by induced AC current, is attributed to high voltage AC power lines in close proximity to a pipeline system. The corrosion can be extremely aggressive, far exceeding the normal corrosion rate caused by corrosive soils. One of the most popular mitigation solutions is a linear grounding system that is installed in parallel to the pipeline.

Compared with bare copper and zinc ribbon, this long-line "cable" is a superior grounding material that provides an effective electrical path to remove or discharge AC current from the pipeline to the ground. It is comprised of a bare stranded copper conductor encased in low resistance backfill with corrosion inhibitors, and then wrapped in a synthetic sock.



Quality Copper Conductor

Our power cable delivers the required current over considerable distance without incurring substantial longitudinal voltage drop.

Evenly Backfill Filling

High performance calcined petroleum coke breeze is tightly pre-packaged and evenly distributed all around the copper conductor, serving as the active matrix in which the electrochemical reactions take place.

- Carbon Content: 98.5% Min.
- Ash: 0.6%
- Moisture: 0.05%
- Volatiles: Nil(950°C)
- Resistivity: 0.1 $\Omega \cdot \text{cm}$ [per G.L.C.-C-12A, 10 bar (145psi) @23°C (73°F)]

Reel Packing

Our AC mitigation ribbon can be packed on wooden or steel reel as required. It is normally installed right from the factory provided reel into the trench for easy transportation.



Acid-resistant Braid Fabric Jacket

Our AC mitigation ribbon is prepackaged with porous, non-woven synthetic sleeve. This tough sleeve is sewn using a poly two or four-thread double interlocking stitch, which prevents the seam from separating during installation, or when stored in high temperature conditions.

- Bursting Strength: 500 N [per ISO 3303]
- Abrasion Resistance: 100 Cycles to Failure [per ASTM D-4157]
- Fluid Resistance: Pass [6-month Immersion Test]
- Chlorine Resistance: Pass [6-month Immersion Test]
- UV Resistance: 55% Tear Strength Loss [per ASTM G-53: 8 hrs @ 60°C (140°F), 4 hrs condensation @ 50°C (122°F)]



AC Mitigation Electrode

PRACTICAL APPLICATION

Our AC mitigation electrode is commonly applied to pipeline grounding systems or structure that are subject to AC interference. It is normally installed parallel to the pipeline through trenching, plowing or directional drilling.

- Prevent voltage spikes during fault conditions
- Reduce AC-induced corrosion
- Maintain AC step and touch potentials to protect personnel from shock hazards



SPECIFICATIONS

Item No.	Cable Conductor	Sock Diameter	Reel Length	Weight	Lifetime
YX-CU-AWG1-S	#1/0 AWG	Φ 38mm (Φ 1.5")	152m (500 ft.)	1.8 kg/m (1.3 lbs/ft.)	25 yrs.
YX-CU-AWG1-M	#1/0 AWG	Φ 38mm (Φ 1.5")	305m (1000 ft.)	1.8 kg/m (1.3 lbs/ft.)	25 yrs.
YX-CU-AWG1-L	#1/0 AWG	Φ 38mm (Φ 1.5")	457m (1500 ft.)	1.8 kg/m (1.3 lbs/ft.)	25 yrs.
YX-CU-AWG2-S	#2 AWG	Φ 38mm (Φ 1.5")	152m (500 ft.)	1.6 kg/m (1.1 lbs/ft.)	25 yrs.
YX-CU-AWG2-M	#2 AWG	Φ 38mm (Φ 1.5")	305m (1000 ft.)	1.6 kg/m (1.1 lbs/ft.)	25 yrs.
YX-CU-AWG2-L	#2 AWG	Φ 38mm (Φ 1.5")	457m (1500 ft.)	1.6 kg/m (1.1 lbs/ft.)	25 yrs.
YX-CU-AWG6-S	#6 AWG	Φ 38mm (Φ 1.5")	152m (500 ft.)	1.5 kg/m (1.0 lbs/ft.)	25 yrs.
YX-CU-AWG6-M	#6 AWG	Φ 38mm (Φ 1.5")	305m (1000 ft.)	1.5 kg/m (1.0 lbs/ft.)	25 yrs.
YX-CU-AWG6-L	#6 AWG	Φ 38mm (Φ 1.5")	457m (1500 ft.)	1.5 kg/m (1.0 lbs/ft.)	25 yrs.





Industrial Corrosion Control Solutions Provider

Established in 2003, YUXI has over a 20-year heritage of innovation in corrosion control science and technology. We're a spirited team of ambitious thinkers and pioneer sheeps with a common goal in mind: protect our clients' assets from corrosion with cost-saving measures.

We have the most comprehensive catalog of cathodic protection materials including anodes, transformer rectifiers, backfills, coatings, etc. Our anodes and supplies are manufactured to strict quality standards through an ISO 9001 quality management system and are guaranteed to offer excellent performance in the industry.



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