



TELPRO

TITANIUM ELECTRODE PRODUCTS COMPANIES
MANUFACTURERS OF MMO AND PLATINIZED TITANIUM ELECTRODES

TELPRO WIRE ANODES

TELPRO MIXED METAL OXIDE COATING

Titanium Electrode Products Companies "TELPRO" manufacture mixed metal oxide wire anodes for cathodic protection. Wire anodes are available in two standard sizes, with two standard current ratings. Other sizes and current ratings are available upon request.

The standard wire anode consists of a solid titanium wire that has been coated with TELPRO mixed metal oxide coating. Copper cored titanium wire anodes are available upon request.

The titanium substrate meets ASTM Standard B348, Grade 1 or Grade 2.

Standard wire anode diameters shall be 1.5mm (0.059") and 3.0mm (0.118").
The approximate electrical resistance at 25 degrees C is:

1.5 mm diameter wire	75,537 microhms/ft.
3.0 mm diameter wire	18,884 microhms/ft.

Mechanical properties are based on typical room temperature.

The mixed metal oxide coating applied to the titanium wire has been designed for use in all cathodic protection applications. TELPRO coating consists of $\text{IrO}_2/\text{Ta}_2\text{O}_5$. Mixed metal oxide coating is generally accepted by the cathodic protection industry to be satisfactory for both chlorine and oxygen evolving electrolytes.

Based on accelerated life testing conducted by an independent laboratory, TELPRO coating has proven to be superior or equivalent to other mixed metal oxide coatings currently being used. A copy of this test report is available upon request.

Strict quality control procedures are followed throughout the coating process to insure proper coating adhesion and loading. Production of a quality product is fundamental in every step of the manufacturing process.

Mixed metal oxide anodes have an extremely low consumption rate. The titanium substrate remains constant throughout the design life of the anode.

TELPRO anode wire is suitable for operation in soils, carbonaceous backfill, fresh water, brackish water and seawater. The wire anodes have the following operating characteristics for standard coating loadings:

ELECTROLYTE	MAX CURRENT DENSITY	ANODE LIFE
Soil	4.64 amps/ft ²	20 years
Carbonaceous Backfill	9.28 amps/ft ²	20 years
Fresh Water	9.28 amps/ft ²	20 years
Brackish Water**	9.28-27.87 amps/ft ²	20 years
Sea Water	55.68 amps/ft ²	20 years

*Coating loading can be increased or decreased depending on particular life/current density requirements

**Current Density should be determined in accordance with brackish water resistivity

Please call for pricing and availability of TELPRO Wire Anodes. Copies of the Five Year Product Warranty are available upon request.