

## TELPRO WIRE ANODES DATA SHEET



Titanium Electrode Products Companies, "TELPRO," are manufacturers of mixed metal oxide anodes for cathodic protection.

**TELPRO Wire Anodes** are manufactured using solid titanium, which meets ASTM B863 Grade 1 or Grade 2 standards, which has been coated with **TELPRO** Mixed Metal Oxide coating.

**TELPRO MMO** coating consists of IrO<sub>2</sub>/Ta<sub>2</sub>O<sub>5</sub> and is suitable for use in all cathodic protection applications. Because mixed metal oxide anodes have an extremely low consumption rate, the titanium substrate remains constant throughout the design life of the anode.

**TELPRO MMO Wire Anodes** are available in two standard sizes, with two standard current output ratings. Other sizes and current output ratings are available upon request. Based upon accelerated life testing, conducted by an independent laboratory, **TELPRO MMO** coating has been proven to be equivalent or superior to other mixed metal oxide coatings which are currently being used; a copy of this test report is available upon request.

APPLICATIONS
CANISTERED ANODES
ABOVE GROUND STORAGE TANKS
UNDERGROUND STORAGE TANKS
WATER STORAGE TANKS
CONTINUOUS HORIZONTAL GROUND BEDS
SHALLOW VERTICAL GROUND BEDS
NATURAL WATER
DEEPANODE GROUND BEDS

Strict quality control procedures are followed throughout the entire coating process, to guarantee proper coating adhesion and loading. Also, **TELPRO** products are tested using an X-Ray Fluorescence Spectrometer, to ensure production of the highest quality product, which is fundamental in every step of the manufacturing process.

### PERFORMANCE DATA AND RATINGS

ELECTROLYTE	MAXIMUM CURRENT DENSITY	LIFETIME
METALLURGICAL COKE	4.6 A/ft <sup>2</sup> (50A/m <sup>2</sup> )	20 YEARS
CALCINED PETROLEUM COKE	9.3 A/ft <sup>2</sup> (100A/m <sup>2</sup> )	20 YEARS
FRESHWATER	9.3 A/ft <sup>2</sup> (100A/m <sup>2</sup> )	20 YEARS
BRACKISH WATER **	9.3 - 27.8 A/ft <sup>2</sup> (100 - 300A/m <sup>2</sup> )	20 YEARS
SEAWATER	55.8 A/ft <sup>2</sup> (600A/m <sup>2</sup> )	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		

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## TELPRO WIRE ANODES DATA SHEET

### TELPRO WIRE ANODES CURRENT RATING IN CALCINED PETROLEUM COKE :

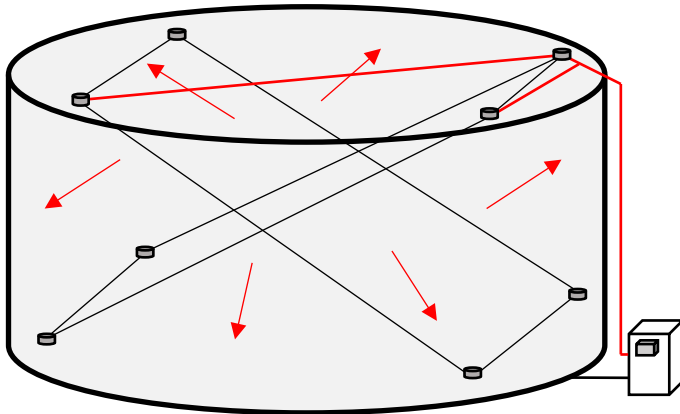
0.062" (1.5mm) - 152mA/linear ft (500mA/linear m)

0.125" (3.175mm) - 305mA/linear ft (1,000mA /linear m)

**BASED ON 20 YEAR DESIGN LIFE**

Lifetimes stated are nominal, we can supply Amps / life different to stated standards on request.

### TYPICAL APPLICATIONS FOR WIRE ANODES



#### SUSPENDED MMO WIRE ANODES FOR TANK INTERNAL PROTECTION

ANODES SUSPENDED / SECURED THROUGH EYEBOLTS  
IN TANK FLOOR / ROOF

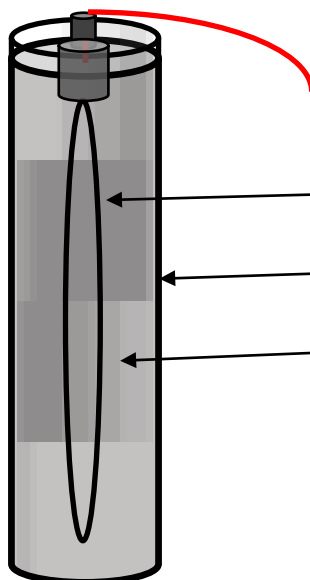
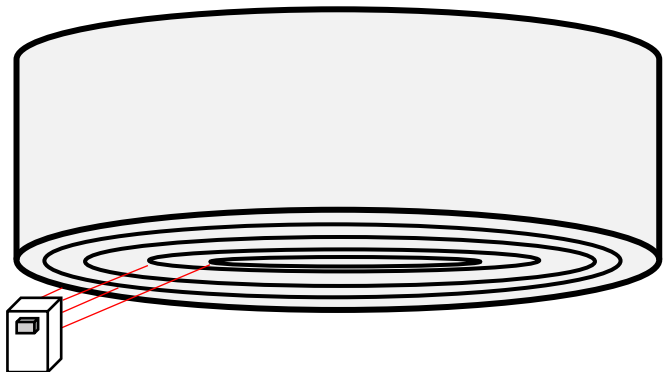
ANODE WIRE RATING DETERMINED BY LIFE /  
ELECTROLYTE / TEMPERATURE FACTORS

#### EXTERNAL BOTTOM PLATE PROTECTION

UNDERTANK SYSTEM LAYOUT – CONCENTRIC WIRE /  
PIGGYBACK ANODE LOOPS

CAN OFFER GREATER CONTROL OF CP SYSTEM AND NO  
EXPOSED WELDING OF Ti BAR / ANODES

EASY TO INSTALL WITH PRE-CUT LENGTHS OF WIRE



#### ALTERNATIVE TO TUBULAR ANODES

WIRE ANODE

GALVANISED STEEL CANISTER

COKE BREEZE BACKFILL

IDEAL FOR DISTRIBUTED ANODE SYSTEMS IN  
CONGESTED PLANT AREAS.