



IRIDIUM-TANTALUM OXIDE COATED TITANIUM PLATE FOR HARD CHROME PLATING

PRODUCT DATA SHEET

Iridium-Tantalum Oxide Coated Titanium Plate for Hard Chrome Plating

Electroplating is a popular metal finishing and improving process used to prevent corrosion of metal or for decorative purposes. This process results in a thin layer of metal being deposited onto the surface of a workpiece by means of a direct electric current. In electroplating practice, the metal atoms are dissolved from the anode into the electrolyte solution as positive ions and the object to be plated is cathodically polarised. Regarded as an insoluble anode for long-term use, YUXI's titanium electrode coated with noble metal oxides is applied in various electroplating operations, such as gold plating, rhodium plating, chrome plating, copper plating, nickel plating, and zinc plating. When the anode coating has reached the end of its lifetime, the titanium anode can be re-coated after cleaning and, if necessary, repairs.

QUALITY SUBSTRATE MATERIAL

Our electrodes are manufactured from high-tensile titanium, which meets commercially Grade I/II standards.

Element	Grade I	Grade II
Iron(Fe)	0.20% max.	0.30% max.
Carbon(C)	0.08% max.	0.08% max.
Nitrogen(N)	0.03% max.	0.03% max.
Hydrogen(H)	0.015% max.	0.015% max.
Oxygen(O)	0.18% max.	0.25% max.
Single Impurity(Each)	0.10% max.	0.10% max.
Other Impurities(Total)	0.40% max.	0.40% max.
Titanium(Ti)	Remainder	Remainder



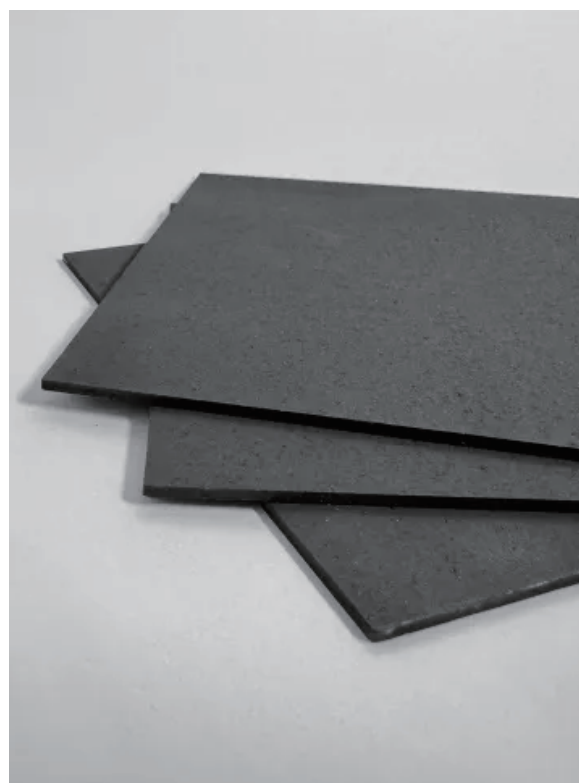
LONG SERVICE COATING

Using state-of-the-art technology, the titanium base is taken to a high temperature ($\geq 1200^{\circ}\text{C}$) in a vacuum sintering furnace ensuring total adhesion of the coating. Thus, the coating consumption rate is extremely low and uniform, measured in milligrams per ampere-year.

Technical Measurement	Performance
Coating Element	Iridium Oxide (IrO_2) Tantalum Oxide (Ta_2O_5)
Coating Thickness	6~12 μm
Coating Uniformity	85% min.

WORKING ENVIRONMENT

Technical Measurement	Performance
Current Density	$\leq 5000 \text{ A/m}^2$
Operating Voltage	$\leq 24\text{V}$
pH Range	1~14
Temperature	$< 80^{\circ}\text{C}$
Fluoride Ion Content	$< 50 \text{ mg/L}$





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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