

umicore

PLATINODE[®] WIRE PLATINUM COATED WIRES Ø 0.05 - 1.5 MM



Highly adhesive platinum coating of refractory metals

Platinum coating is carried out using high temperature electrolysis (HTE). In this process, the platinum is deposited from a cyanide salt melt at temperatures of 500 to 600°C. The platinum layer produced in this way not only has high ductility and maximum purity, but also superior adhesion and is free from internal stress. Coatings with high load-bearing capacity, maximum corrosion resistance and excellent durability can be produced. In this way, layers from 0.1 to 10.0 µm can be deposited in a dense, adhesive and ductile manner.

The HTE platinum coating is deposited in a cyanide salt melt and is therefore free of organic substances.

This highly adhesive platinum coating is mainly used for refractory metals such as titanium, niobium, molybdenum, tantalum, stainless steel, nickel, CrNi, FeNi, Inconel, copper, etc.



Advantages

- High purity 99,99%, ductility and plasticity
- Best corrosion resistance
- No internal stress
- Superior adhesion
- · Closed and dense Pt-layer
- No Hydrogen-embrittlement
- Best weldability
- Electrical conductivity
- Excellent thermal compatibility
- High body compatibility

Applications

- Medical application
- Lighting industry
- Sensor-applications
- Water purification
- Water descaling
- Corrosion protection
- Violin strings

PLATINODE[®] WIRE platinum coated wires Ø 0.05 - 1.5 mm

TECHNICAL SPECIFICATIONS

Technical Specifications	
Diameter of the wire	0.05 - 1.5 mm
Pt-thickness	0.1 – 10.0 µm
Thickness toleranz	+/-0.02 - +/- 0.1
Coatable base materials	Mo, Ti, Nb, Ta, W, Ni, CrNi, FeNi, Inco- nel, Cu, Stainless Steel, Nitinol, Zr

Cross section of the HTE platinum layer





Grain structure of the HTE platinum layer



YOUR CONTACT

Do you have a specific question or would you like a no-obligation quote calculation? Our specialist will be happy to help you with any technical questions you might have.



Reiner Maier Technical Services Electrocatalytic Electro

Mail: reiner.maier@eu.umicore.com Phone: +49 (0) 7171 607 - 323



Christian Kurrle Sales Manager Electrocatalytic Electro

 Mail:
 christian.kurrle@eu.umicore.com

 Phone:
 +49 (0) 7171 607 - 167



The information and statements contained herein are based on our experience in the fields of research and applied technology and are believed to be accurate at the time of publication, but - unless agreed in writing - we make no warranty with respect thereto, including but not limited to any results to be obtained. This product information sheet in the English language prevails any translation.

www.mds.umicore.com