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YiHeng



Shaanxi Yi Heng Non-Ferrous Metals Industries Co., Ltd. <Xi`an Metals & Minerals Import & Export Co., Ltd.>

# YiHeng NON-FERROUS METALS INDUSTRIES

Our motto: The needs of our clients are ours; we will endeavor to meet and exceed our clients' requirements and provide the best possible services.





We are one of leading manufacturers and distributors of Tantalum and Tantalum alloy, Niobium and Niobium products in China. Apart from processing traditional materials, we also develop new products with the help of high technology. Relying on years of experiences, advanced technologies, quality equipments, highly efficient manufacture and standard management, we have established a comprehensive system of research, manufacture and marketing of Tantalum and Niobium products, which are high-melting and high-boiling rare metals with good ductility and resistance to corrosion. The Tantalum and Niobium new materials can be used in electronics, precision ceramic and precision glass industry; electro-acoustic optical devices; carbide, aerospace and electronic energy industry; biomedical engineering; superconducting industry; special steel and other industries. Our products, well known for their excellent properties, have been approved by various international authoritative institutions and have been supplied to customers in many Countries.

#### Tantalum / Niobium Wire

**Application**: Capacitor grade tantalum wires are mainly used as the anode lead of Ta Capacitor. Niobium and niobium alloy wires are also used as the anode lead of electrolytic capacitor, but mainly used to make High-Voltage Sodium Lamp.

**Manufacturing Steps:**  $\Phi$  6mm coils peeling drawing down to  $\Phi$  1.0mm with drawing processing rate  $6\%\sim8\%\rightarrow$  cold / hot drawing with annealing after each drawing pass $\rightarrow$  cutting and straightening for cut to length wire $\rightarrow$  cleaning and vacuum annealing $\rightarrow$  spooling and packing.

Chemistry&Standard: Ta ASTM B365-98 Nb ASTM B392-03

Materials:

Pure Ta: RO5200

Ta Alloy: Ta2.5W Ro5252 Ta10W RO5255 Ta40Nb RO5240

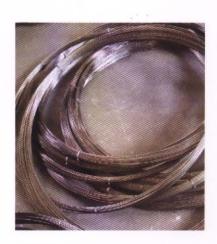
Pure Nb: RO4210 RO 4200

Nb Alloy: Nb1Zr RO4251 RO4261

Size:  $\Phi$  0.1mm  $\sim \Phi$  3.0mm







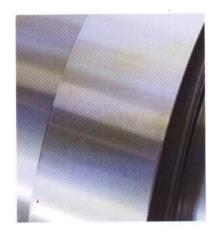


## Tantalum and Niobium Plates / Sheets and Foils / Coils

Plates / sheets are rolled by 400mm, 600mm, 800mm, 1200mm hot and cold rolling mills.

Size: Thickness0.1-5mm x Width 200-1000mm x Length 2000max







# Foils / Coils are rolled by 20-high rolling mills.

Size: Thickness0.02-0.1 mm x Width 3-610 mm x Length

Chemistry&Standard: Ta ASTM B708-05 Nb ASTM B393-05

Materials: Pure Ta Ro5200

Ta Alloy: Ta2.5W RO5252 Ta10W RO5255 Ta40Nb RO5240

Pure Nb: RO4210 RO 4200

Nb Alloy: Nb1Zr RO4251 Ro4261



### Tantalum / Niobium Seamless Tubes and Capillary Tubes

Tubes manufactured by cold rolling process from extruded tube blanks and annealed in vacuum annealing furnace, have high quality with various outside diameter and wall thickness.

Chemistry&Standard: Ta ASTM B521-98 Nb ASTM B394-04

Materials: Pure Ta RO5200

Ta Alloy: Ta2.5W RO5252 Ta10W RO5255 Ta40Nb RO5240

Pure Nb: RO4210 RO 4200

Nb Alloy: Nb1Zr RO4251 RO4261

**Size:** OD3-120mm x Wall 0.2-10mm x length 6000max

Capillary tubes

Pure Ta RO5200, Nb1Zr RO4261

Size: OD1-3mm x Wall 0.15-0.22mm x Length 800-1000mm



















### **Fabricated Products**

By various techniques, including pressing, casting, forging, rolling, turning, milling, grinding, polishing etc, manufactured into rings, target, boat, crucible, screw, nut, flange, heat shield, heating unit etc.

Size: According to the requirements of users.



#### Tantalum / Niobium Ingots EBM

Chemistry & Standard: Ta ASTM B364-92

Nb ASTM B391-96

Materials:

Pure Ta: RO5200

Ta Alloy: Ta2.5W RO5252 Ta10W RO5255

Ta40Nb RO5240

Pure Nb: RO4210 RO 4200

Nb Alloy: Nb1Zr RO4251 RO4261

**Size:**  $\Phi$  (70-195)  $\times \leq 1600$ mm





#### Tantalum / Niobium Rods

Billets are forged by Precision Forging Machine, pickled, annealed and further to be rolled and machined. For excellent mechanical properties, the extruded rods will be manufactured separately.

Chemistry & Standard: Ta ASTM B365-98

Nb ASTM B392-03









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