



宝鸡难熔金属开发公司

Bao Ji Refractory Metal Developer Co.,Ltd

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TANTALUM PRODUCTS

TANTALUM—Plate/Sheet/Foil

✧ Products Properties:

- High melting point—2996℃
- High Ductility
- Easy be machined in the room temperature
- Excellent resistance to electrochemical corrosion,Chemical most stable below 150℃,
No reaction with HCl, HNO3 and aqua regia.
- High-density —16.6 g/cm3
- Low coefficient of thermal expansion
- Appearance:Grayish silver,bright and smooth

✧ Chemical Composition:

		Chemistry %											
Grade	Chief component		Impurities max										
	Ta	Other	Fe	Si	Ni	W	Mo	Ti	Nb	O	C	H	N
Ta1	Balance		0.004	0.003	0.002	0.004	0.004	0.002	0.03	0.015	0.004	0.0015	0.002
Ta2.5W	Balance	W2.0~3.5	0.01	0.005	0.005	—	0.02	0.003	0.05	0.015	0.01	0.002	0.01
Ta10W	Balance	W9.5~11	0.01	0.005	0.005	—	0.02	0.003	0.05	0.015	0.01	0.002	0.01
TaNb3	Balance	Nb1.5~3.5	0.03	0.03	0.005	0.04	0.03	0.005	—	0.03	0.02	0.005	0.025

注: Ta1=RO5200
Ta2.5W=RO5252
Ta10W=RO5255

✦ **Mechanical requirements:**

Grade	Annealed		
	Tensile strength min, psi (MPa)	Yield strength min, psi (MPa)(2%)	Elongation min, % (1 inch gage length)
Ta1(RO5200) Thickness<0.060"(1.524mm) Thickness≥0.060"(1.524mm)	30000 (207)	20000 (138)	20
	25000 (172)	15000 (103)	30
Ta2.5W (RO5252) Thickness<0.125" (3.175mm) Thickness≥0.125" (3.175mm)	40000 (276)	30000 (207)	20
	40000 (276)	22000 (152)	25
Ta10W (RO5255)	70000 (482)	60000 (414)	15
	70000 (482)	55000 (379)	20

✦ **Specification:**

Thickness (mm)	Width (mm)	Length (mm)
0.03~0.09	100	—
>0.09-0.50	30~300	50~2000
>0.50-0.80	30~300	50~1000
>0.80-1.00	50~400	50~1000
>1.00-1.50	50~400	50~1000
>1.50-3.00	50~400	50~1000
>3.00-4.00	50~400	50~1000
>4.00-6.00	50~400	50~1000
>6.00	50~400	50~1000

Note: All the products can be supplied in according to customer's requirement.

❖ **Tolerance:**

Thickness, inch (mm)	Tolerance, +/-inch (mm)	
	Width < 6 inch (152.4mm)	Width < 6~24 inch (152.4~609.6mm)
0.0051~0.010(0.129~0.254)	0.0005 (0.0127)	
0.011~0.015 (0.279~0.381)	0.0007 (0.0178)	0.001(0.0254)
0.016~0.020 (0.406~0.508)	0.0008 (0.0203)	0.0015(0.0381)
0.021~0.030(0.533~0.762)	0.0015 (0.0381)	0.0025(0.0635)
0.031~0.060(0.787~1.524)	0.0025(0.0635)	0.0035(0.0889)
0.061~0.090(1.549~2.286)	0.004 (0.1016)	0.005(0.1270)
0.091~0.125(2.311~3.175)	0.006(0.1524)	0.007(0.1778)
0.126~0.187(3.200~4.750)	0.010(0.2540)	0.010(0.2540)

Note:Special demands on tolerance available.

