



## Niobium Products

The range of Niobium offered by Firmetal, includes Niobium (Nb) (Columbium), Niobium 1% Zirconium (Nb1Zr), Niobium 7.5% Tantalum (Nb7.5 Ta), Niobium 47% Titanium (Nb47Ti), etc.

### Dimension Available

Available Niobium Forms		
Form	Thickness, Dia., Wall	Width, Length
Niobium Foil	0.001 in. to 0.004 in.	6 in. max. width x coil
Niobium Sheet	0.005 in. to 0.019 in.	12 in. width x coil
		Wider width available
Niobium Sheet	0.020 in. to 0.100 in.	36 in. width x 72 in. length
Niobium Plate	0.125 in. to 2 in.	36 in. width x 72 in. length
		weight of finished plate not to exceed 250 lb.
Niobium Wire	0.010 in. to 0.124 in.	Coil
Niobium Rod	0.125 in to 0.625 in. dia.	Coil or straight lengths not to exceed 144 in.
	0.626 in to 3.000 in. dia.	Straight lengths dependent on weight
Niobium Billet	3.5 in. dia. nominal	Length dependent on weight
Niobium Tube	0.75 in. OD x 0.065 in wall seamless	Other sizes by request
Tube welded	By request	By request
Niobium Ingot	By request	By request
Niobium Target	By request	By request
Niobium Screw	By request	By request
Niobium Standard Parts	By request	By request
Custom fabrications are available upon request		

### Firmetal Co., Ltd.

China (HQ)

**Add:** Ocean Towers 550 Yanan Road (East),  
Shanghai China 200001

**Tel:** +86 21 29913850      **Fax:** +86 21 29913852



ASTM B391, B392, B393, B394: Chemical Requirements for Nb and Nb Alloy Nb1Zr (Maximum Weight %)				
Element	Type 1 Reactor Grade Unalloyed Niobium R04200	Type 2 Commercial Grade Unalloyed Niobium R04210	Type 3 Reactor Grade Nb 1% Zirconium R04251	Type 4 Commercial Grade Nb 1% Zirconium R04261
<b>Each Ingot</b>				
Carbon	0.01	0.01	0.01	0.01
Nitrogen	0.01	0.01	0.01	0.01
Oxygen	0.015	0.025	0.015	0.025
Hydrogen	0.0015	0.0015	0.0015	0.0015
Zirconium	0.02	0.02	0.8 to 1.2	0.8 to 1.2
Tantalum	0.01	0.2	0.1	0.5
Iron	0.005	0.01	0.005	0.01
Silicon	0.005	0.005	0.005	0.005
Tungsten	0.03	0.05	0.03	0.05
Nickel	0.005	0.005	0.005	0.005
Molybdenum	0.010	0.10	0.10	0.050
Hafnium	0.02	0.02	0.02	0.02

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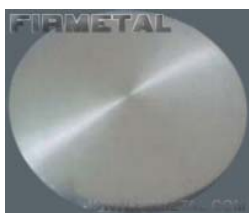
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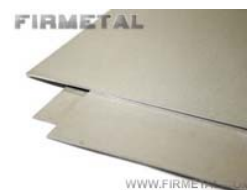
## Products Show



**Niobium target**



**Niobium rod**



**Niobium sheet**



**Niobium forging**



**Niobium foil**



**Niobium pipe**



**Niobium wire**



**Niobium ingot**



**Niobium screw**

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**FIRMETAL**  
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Website: [www.firmetal.com](http://www.firmetal.com)

Mail: [info@firmetal.com](mailto:info@firmetal.com)  
[tech@firmetal.com](mailto:tech@firmetal.com)