

Refractory Metals semi-finished products are supplied to the Furnaces, Nuclear, Glass, Aerospace, Defence, Chemical and Electronic Industries to name but a few.

SUPPLIED FORMS

- Bar
- Plate
- Rod
- Sheet
- Tube
- Wire

MOLYBDENUM

Atomic Number 42

Atomic Weight 95.94

With a melting point of 2626°C this is a hard, pure element with excellent thermal conductivity.

It's high corrosion resistance makes it resistant to corrosion caused by glass and other metals.

Molybdenum is a key alloying addition in some stainless steels (316, 317 and Duplex) in which it has the effect of increasing corrosion resistance (especially in seawater environments) and strength.

TUNGSTEN (W)

Atomic Number 74

Atomic Weight 183.84

Tungsten combines excellent corrosion resistance, good electrical and thermal conductivity, a low coefficient of expansion and high strength at elevated temperatures.

It's melting point is 3422°C, the highest of all refractory metals.

On the down side Tungsten is notoriously difficult to fabricate.

NIOBIUM (NB)

Atomic Number 41

Atomic Weight 92.91

Niobium has approximately 50% of the density of Tantalum with excellent corrosion resistance.

It's melting point is 2470°C.

It has good cold ductility properties.

Niobium is sometimes referred to as Columbium (Cb) especially in the USA.

TANTALUM (TA)

Atomic Number 73

Atomic Weight 180.95

Tantalum is one of the most corrosion resistant materials available.

It has a melting point of 2990 Deg C.

It's corrosion resistance has singled it out for particular uses in the Chemical Industry where conditions are too severe for any other metal

For many applications Tantalum has proven even more effective than Glass.

RHENIUM (RE)

Atomic Number 75

Atomic Weight 186.21

An extremely expensive and therefore sparingly used material.

Rhenium has a melting point of over 3000°C and a density of 21.02 g/cc.

A very hard material with high corrosion resistance but will slowly tarnish in moist air.

Address: Unit 2 Carnival Park
Festival Way
Basildon
Essex
SS14 3WN
Tel: 01268 884200
Fax: 01268 884200
Email: essex@aalco.co.uk
Web: www.aalco.co.uk

REVISION HISTORY

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