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TUNGSTEN

Eagle Alloys Corporation can supply commercially pure unalloyed Tungsten in a wide variety of sizes and shapes for **immediate shipping** or we can supply **custom** sizes, shapes and **finished parts** with a **short lead time**. Eagle Alloys Corporation is capable of supplying raw material or finished parts to our customer's specifications.

EA Tungsten is **DFARS Compliant** since Tungsten is not listed as a specialty metal and therefore not subject to the qualifying country clause.

Eagle Alloys supplies DRC **Conflict Free** material only.

Tungsten has the highest melting point of the refractory metals, high density, and low coefficient of thermal expansion. It offers exceptionally high strength and good electrical resistivity at very high temperatures. Unalloyed Tungsten is very difficult to machine and fabricate. Eagle Alloys can furnish finished parts in this material in relatively quick turnaround times. We can also supply 1%, 1.5%, 2% **Lanthanated**, 1%, 2%, 3%, 4% **Thoriated** Tungsten and Tungsten **Rhenium** Alloys.

Please see our chart of standard grade of Tungsten and physical properties

EA Tungsten Grade	Unalloyed Tungsten	Tungsten	Carbon	Oxygen	Nitrogen	Iron	Nickel	Silicon
Chemical Composition % max	per ASTM-B-760	Balance	0.01%	0.01%	0.01%	0.010%	0.010%	0.010%
Density	19.25 g/cm ³							
	0.7 lb/in ³							
Melting Point	3422°C							
	6192°F							
Symbol	W							
ASTM-B-760								

*Note: ASTM-B-760 applies to plate, sheet, and foil. Rod and bar are chemistry only. Tungsten materials can be fabricated and custom produced to customer's specifications. Above data is for informational purposes only. Eagle Alloys is not liable for accuracy of these contents or applications. Finished part drawings may be forwarded to a third party for outsourcing.

TUNGSTEN TYPICAL APPLICATIONS

Filaments, vacuum furnaces, electrical contacts, glass-to-metal seals, supports, electrodes, cathodes and anodes, electronics, radiation shielding, medical devices, x-ray targets, ion implantation parts, windings and heating elements for electrical furnaces, sputtering targets, heat shields, heat bodies, tungsten boats and crucibles.

TUNGSTEN FORMS AVAILABLE

Tungsten wire, tungsten rod, tungsten bar, tungsten strip, tungsten foil, tungsten sheet, tungsten plate, tungsten powder, tungsten tubing, tungsten blanks, tungsten semi-finished and custom finished tungsten parts.

MACHINING TUNGSTEN

Tungsten can be very difficult to fabricate because of its high hardness and low ductility. Tungsten is a strong, hard, crack-sensitive metal that is usually brittle at room temperature. It requires special handling and skill beyond that necessary for most metals and alloys. It is important to remember when working with Tungsten is that it must be cut or formed at temperatures well above its transition temperature. Failure to do this may result in cracking or lamination. Care should be taken to insure that the metal remains at this temperature throughout the entire forming process. The use of cold tooling which rapidly chills the metal can be as harmful as not preheating the material. The best method for machining that involves metal removal is E.D.M. The following conventional methods can also be used with great care: Grinding, forming, joining, milling, riveting, spinning, stamping, and turning.

Please feel free to contact us for alloys and sizes available for [same](#) or [next day shipping](#) as well as your custom needs.

EAGLE ALLOYS CORPORATION

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