



**Focused on today...
A clear vision of tomorrow...**

Atomic Number	75	186.21	Atomic Weight
Crystal Lattice	HCP	2,13,32, 18,8,2	Electron Shells

Rhenium

From heater elements for the semi-conductor industry to a broad spectrum of aerospace applications, from the field of defense to the ever-widening field of medicine, and almost everything in between, **rhenium** has proven to be the material of choice for both project and production uses.

Resistant to heat, corrosion and mechanical shock, and possessing excellent electrical resistivity, **rhenium** is an ideal material for both project and production applications. What's more, **rhenium** provides excellent wear resistance, which means increased reliability and greater dependability. And what that means for you is a longer life for your part or component.

Available in ribbon, sheet, plate, wire, rod and bar stock forms, as well as flaked and spherical powders (**SReP™**).

Here are some selected properties of rhenium.

Density, g/cm³	21.04
Melting Point, °C	3180
Thermal Conductivity, W/m at 20°C	39.6
Linear Coefficient of Thermal Expansion, µm/m·K from 20-1000°C	6.8
Ductile Brittle Transition Temperature (DBBT), °C	DOES NOT EXIST
Electrical Resistivity, µΩ·m at 20°C	0.193
Elastic Modulus in Tension, GPa	460

Rhenium can be welded by inert gas or electron beam methods. Welds are extremely ductile and can be formed further at room temperature. ECM (electrochemical machining), EDM (electrical discharge machining), and abrasive cutting and grinding methods produce first-rate results.

Rhenium's unique properties are also imparted to its alloys- **molybdenum-rhenium** and **tungsten-rhenium**. Rhenium Alloys, Inc. produces these alloys in several forms and compositions. Inquire at sales@rhenium.com for details.

Made in the U.S.A.

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