



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

Atomic Number	42	95.94	75	186.21	Atomic Weight
	Mo		Re		
Crystal Lattice	2,8,18,1 BCC 3,1		2,13,32, HCP 18,8,2		Electron Shells

Molybdenum-Rhenium

Most commonly known as **Moly-Rhenium**, and used extensively throughout many industries -from medicine to defense and pure research to production welding, this material is a less costly alternative to pure rhenium.

Possessing excellent thermal and mechanical properties, **Moly-Rhenium** is used as welding wire, wires for numerous medical applications, components and parts for the aerospace and defense industries, and grids for electronic applications.

Available in three standard alloy compositions, Mo 41.5% Re, Mo 44% Re, and Mo 47.5% Re (a-k-a 50/50 **Moly-Rhenium**), we will also custom formulate a molybdenum-rhenium alloy to your specifications. These materials are offered in the following forms: wire, rod, bar, foil, sheet and plate. Powders in composite and spherical alloyed (**SMoReP™**) forms are also available in a variety of mesh/sieve sizes.

Here are some selected properties of molybdenum 41-47.5%-rhenium alloys.

Density, g/cm³	13.52
Melting Point, °C	2550
Thermal Conductivity, W/m at 20°C	36.8
Linear Coefficient of Thermal Expansion, µm/m·K from 20-1000°C	5.7
Ductile Brittle Transition Temperature (DBBT), °C	(-273)-(-173)
Critical Superconducting temperature, K	10.9
Electrical Resistivity, µΩ·m at 20°C	0.220
Elastic Modulus in Tension, GPa	373

Rhenium Alloys, Inc. also produces pure **rhenium** and **tungsten-rhenium** alloys in several forms and compositions. Inquire at sales@rhenium.com for details.

Made in the U.S.A.

P.O. Box 245
1329 Taylor Street
Elyria, Ohio 44036 USA

<http://www.rhenium.com>

Phone: (440) 365-7388
Toll Free: (888) RHENIUM
Fax: (440) 366-9831
E-mail: info@rhenium.com