

# METAL FROM STOCK

## The Most Extensive Selection of Hermetic Sealing Alloys

### Controlled Expansion Alloys

**Kovar** Commonly used for high integrity Glass and Ceramic to metal seals, Lids, Lead Frames and Electronic package base plates.

**Alloy 36** A Low Expansion Alloy known for good stability over a wide temperature range making it ideal for many applications.

**42 Alloy** This nickel-iron alloy is ideal for lid, lead frames, stencil/etching, telecommunications and aircraft industry.

**45 Alloy, 46 Alloy** With it's relatively constant expansion rate, this alloy's predictability allows usage in applications such as terminals and thermostats.

**47/50 Alloy, 48,49 Alloy** A versatile alloy used in both controlled expansion and shielding applications.

**52 Alloy** This alloys expansion characteristics make it a good match with glass used in sealing Semiconductor devices.

### Low Expansion Alloys

**Alloy 36** A Low Expansion Alloy known for good stability over a wide temperature range making it ideal for many applications.

**42 Alloy** This nickel-iron alloy is ideal for lid, lead frames, stencil/etching, telecommunications and aircraft industry.

### Electronic Grade Materials

**Nickel 200/201/233** A good combination of Toughness, Ductility, Electrical Conductivity, Corrosion Resistance and Strength Retention at high temperatures.

**Cupro Nickel, Nickel Silver, Phosphor Bronze** Copper based alloys with good corrosion resistance used in coining and stamping applications generally with an aesthetic value.

**OFHC Copper 101 & 102** Oxygen Free High Thermal Conductivity are the trademarks of these high copper metals.

### Shielding Alloys

**HyMu 80** This unique chemistry allows for excellent shielding properties in protecting sensitive devices from stray magnetic waves.

**47/50 Alloy, 48,49 Alloy** A versatile alloy used in both controlled expansion and shielding applications.

### Miscellaneous Grades

**1010 Carbon Steel** A low carbon steel with good formability and ductility, this metal is typically used in structural and housing type applications.

### Stencil Grade Metals

**301/302/304 Stainless** Excellent Workability, Corrosion Resistance and Strength, these alloys are used for applications that require good appearance and wear.

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### High Temperature Metals

**Molybdenum** This low expansion metal offers great strength and excellent Corrosion Resistance.

**Tungsten** With a high melting point this metal is used for in a wide variety of industries such as Lighting, Tooling and Aerospace.

**Tantalum** Strong, Ductile this metal exhibits extremely high corrosion resistance.

### Non Stock Alloys

Let us help you procure your alloy.

## Stocking Programs Available

**NEA** ISO 9001: 2015  
Specialty Metal Service Center  
Dedicated to Customer Service & Quality

NATIONAL ELECTRONIC ALLOYS  
[www.nealloys.com](http://www.nealloys.com)

#### EAST COAST

3 Fir Court, Oakland, NJ 07436  
**201-337-9400 • Fax: 201-337-9698**  
Toll Free: 800-524-4309  
Email: Sales@nealloys.com

#### WEST COAST

1847 W. Business Center Dr., Orange, CA 92867  
**714-556-5561 • Fax: 714-556-5562**  
Toll Free: 877-632-9378  
Email: Sales@nealloyswest.com