



## A Company Dedicated to Customer Service and Quality

HIGH RELIABILITY • COMPETITIVE PRICING • INSIGHT REGARDING CUSTOMER NEEDS

NATIONAL  
ELECTRONIC  
ALLOYS INC.

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# NATIONAL ELECTRONIC ALLOYS INC.

Specialty Metal Service Center  
Dedicated to Customer Service & Quality



An ISO Certified Corporation

### East Coast

3 Fir Court, Oakland, NJ 07436  
201-337-9400 • Fax: 201-337-9698  
Toll Free: 800-524-4309  
[www.nealloys.com](http://www.nealloys.com)

### West Coast

1335 East Warner Ave., Santa Ana, CA 92705  
714-556-5561 • Fax: 714-556-5562  
Toll Free: 877-632-9378  
[www.nealloyswest.com](http://www.nealloyswest.com)

# SPECIALTY METAL SERVICE CENTER – ISO 9002

## ASTM F30 Alloy 42 Alloy Chemical Milling Deep Draw Quality (Lead Frame Quality)

Size	Coil Slit To Your Width	Sheet Sheared To Your Width	Photo Etching & Chemical Milling Grades	Coil Lead Frame Or Deep Draw
.004x12	✓	✓	✓	✓
.0045x12	✓	✓	✓	✓
.005x16	✓	✓	✓	✓
.006x16	✓	✓	✓	✓
.0075x16	✓	✓	✓	✓
.008x16	✓	✓	✓	✓
.0095x12	✓	✓	✓	✓
.010x16	✓	✓	✓	✓
.012x12	✓	-	-	✓
.0142x12	✓	✓	✓	✓
.015x16	✓	✓	✓	✓
.020x24x72	-	✓	-	✓
.025x12	✓	-	-	✓
.0285x12	✓	-	-	✓
.030x24x72	-	✓	-	✓
.040x24x72	-	✓	-	✓
.043x12	-	-	-	✓
.050x12	-	-	-	✓
.059x12	-	-	-	✓
.060x12	-	-	-	✓
.061x12	-	-	-	✓
.080x8	-	-	-	✓
.125x16x72	-	✓	-	✓

### 42 ALLOY PLATE – HOT ROLLED

Thickness	Ground Surface	With Oxide
.180	✓	-
.210	✓	-
.250	✓	✓
.320	✓	-
.375	✓	✓
.437	✓	✓
.500	✓	-
.625	✓	-
.750	✓	-
1.00	✓	-
3.75	-	✓

- Our Service Center offers the most complete line of high quality materials for high reliability packages.
- Our performance far exceeds the requirements set forth by the ASTM, Military and UNS standards.
- Our customers know that when we sell them a product...it will work in their applications.
- Our "in-stock" approach relieves our customers of having to stock hundreds of variables with thousands of dollars tied up in materials inventory.
- Our shipments are accompanied by actual material analysis and all material features traceability.

## Lo Expansion INVAR 36 Alloy MIL I 23011C, CL 7

Size	Coil	Sheet	Foto Etching	24" / 26"
.004	-	-	✓	-
.005	-	-	✓	✓
.006	-	-	✓	✓
.007	-	-	✓	✓
.008	-	-	✓	✓
.010	✓	✓	✓	✓
.015	✓	✓	✓	✓
.020	✓	✓	✓	✓
.031	✓	✓	✓	✓
.041	-	✓	-	✓
.061	-	✓	-	✓
.100	-	✓	-	✓
.125	-	✓	-	✓

Laser Cutting Grade

### PLATE – HOT ROLLED

Size	Smooth Ground	With Oxide
.187	✓	-
.250	✓	✓
.375	✓	-
.500	✓	✓
.625	✓	✓
.730	✓	✓
.750	✓	✓
1.0	✓	✓
1.250	-	✓
1.5	-	✓
2.0	-	✓
2.5	-	✓
3.0	-	✓
4.0	-	✓
4.625	-	✓
5.0	-	✓

Wire & Rod Available From Stock

## Nickel Electronic Grade

NI 200 NI 270 NI 201

### COIL SLIT TO YOUR WIDTH

.003	.025
.005	.030
.010	.040
.015	.050
.020	.062

OTHER SIZES AVAILABLE

## Stainless Steel 304 304L 316 316L

CHEMICAL MILLING &  
LASER CUTTING GRADES

12" & 24" Wide

Flat For Stencil Applications

## Molybdenum



ASTM B386 & B387; Type 361

Sheet .003" thru .125"

Plate .187" thru 2.000"

Rod .060" thru 2.600"

Available  
From Stock



39 ALLOY ■ 45 ALLOY ■ 46 ALLOY ■ 48 ALLOY ■ 49 ALLOY ■ 52 ALLOY  
OTHER ELECTRONIC ALLOYS AVAILABLE ■ SHEET ■ COIL ■ ROD ■ PLATE

**NICKEL IRON COBALT • GLASS & CERAMIC SEALING ALLOY**

**F15 ALLOY (KOVAR • RODAR)**

**MIL I 23011C CLASS 1**

**For High Integrity Glass & Ceramic To Metal Seals**

**ASTM F15 Alloy**

(KOVAR)

COIL THICKNESSES

.004	.0142	.045
.0045	.0145	.050
.005	.015	.059
.006	.020	.060
.007	.025	.062
.008	.030	.064
.0098	.035	.070
.010	.040	.082
.012	.043	

ALL COIL SLIT TO YOUR WIDTH

**ASTM F15 Alloy**

(KOVAR)

MIL I 23011C CLASS 1  
NI/IRON/COBALT ALLOY  
PLATE - HOT ROLLED

.150 X 15 X 72	.500 X 15 X 72
.164 X 15 X 72	.515 X 15 X 72
.187 X 15 X 72	.540 X 15 X 72
.210 X 15 X 72	.587 X 15 X 72
.235 X 15 X 72	.625 X 15 X 72
.250 X 15 X 72	.687 X 15 X 72
.260 X 15 X 72	.700 X 15 X 72
.281 X 15 X 72	.750 X 15 X 72
.312 X 15 X 72	.850 X 15 X 72
.320 X 15 X 72	.860 X 15 X 48
.375 X 15 X 72	.875 X 15 X 48
.390 X 15 X 72	1.00 X 15 X 31
.400 X 15 X 72	1.50 X 15 X 31
.425 X 15 X 72	2.00 X 15 X 24
.437 X 15 X 72	

OTHER SIZES ALSO AVAILABLE

**ASTM F15 Alloy**

(KOVAR)

SHEET COLD ROLLED,  
BRIGHT ANNEALED  
MIL I 23011C, CL. 1

TK		WIDTHS		LENGTH
.015	x	12, 13, 24"	x	72
.020	x	12, 13, 24"	x	72
.025	x	12, 13, 24"	x	72
.030	x	12, 13, 24"	x	72
.035	x	12, 13, 24"	x	72
.040	x	12, 13, 24"	x	72
.050	x	12, 13, 24"	x	72
.060	x	12, 13, 24"	x	72
.062	x	12, 24"	x	72
.072	x	12, 24"	x	72
.078	x	12, 24"	x	79
.080	x	12, 24"	x	72
.090	x	Random Width	x	72
.092	x	Random Width	x	72
.100	x	Random Width	x	72
.115	x	Random Width	x	72
.125	x	Random Width	x	72

ROD (KOVAR)

**ASTM F15 Alloy**

CERTIFIED TO -196°C  
NO TRANSFORMATION

DIAMETERS

.040	.187	.500	1.375
.050	.200	.562	1.500
.060	.203	.625	1.625
.062	.218	.750	1.750
.100	.250	.875	2.0
.125	.312	1.0	2.125
.156	.375	1.125	2.5
.178	.437	1.250	3.0

LARGER SIZES AVAILABLE UP TO 6" DIA.

**ASTM F15 Alloy**

(KOVAR)

MIL I 23011C, CL. 1  
CHEMICAL MILLING GRADE  
ETCHING QUALITY  
COIL OR SHEET

.004 x 12 x COIL	.0125 x 12 x COIL
.0045 x 12 x COIL	.0142 x 12 x COIL
.005 x 12 x COIL	.0145 x 12 x COIL
.006 x 12 x COIL	.015 x 12 x COIL
.007 x 12 x COIL	.020 x 12 x 72
.008 x 12 x COIL	.025 x 12 x 72
.0095 x 12 x COIL	.030 x 12 x 72
.010 x 12 x COIL	

**HY-MU-80  
SHIELDING ALLOYS**

MIL N 144 11C

HY MU 80

MU METAL

48 ALLOY

49 ALLOY

COIL

SHEET

.004 x 12 x COIL	.014 x 24 x 120
.006 x 12 x COIL	.020 x 24 x 120
.010 x 12 x COIL	.025 x 24 x 120
	.030 x 24 x 120
	.040 x 24 x 120
	.050 x 24 x 120
	.062 x 24 x 120



**OTHER SIZES AVAILABLE UPON REQUEST!**

# **NATIONAL ELECTRONIC ALLOYS**

## **How Our Insight Makes A Difference**

In this industry, experience means a lot. It means an awareness of your needs and objectives that is reflected in everything we do.

Dick Geoffrion's background includes management positions in the procurement of materials and quality control for International Telephone & Telegraph (ITT).

For the past three decades he has been involved in supplying materials to the microwave, vacuum tube, hybrid and semiconductor industries.

With this experience from the procurement side, coupled with years on the supply side, Dick Geoffrion gives our company a unique insight into our customers' needs.

Our approach is to anticipate your procurement worries and to provide MORE FEATURES than you ordinarily would expect:

- 1 - QUALITY** — The Leader...we leave the others behind.
- 2 - SERVICE** — From Stock...very rapid action.
- 3 - PRICE** — Competitive...check it out.
- 4 - RELIABILITY** — Overall...when you evaluate us and our competitors, you'll want what we have to offer.

**For More Information Call Toll Free:**

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