



28
Ni
58.6934
Nickel

Nickel 205

Electrical, Electronic Nickel

DESCRIPTION

Nickel 205 alloy is a wrought nickel alloy with properties similar to nickel 200 alloy. Select chemistry modifications to Ni 200 provide Ni 205 with a high magnetostrictive coefficient and Curie temperature. It exhibits excellent mechanical, electrical and corrosion-resistant properties along with good oxidation resistance.

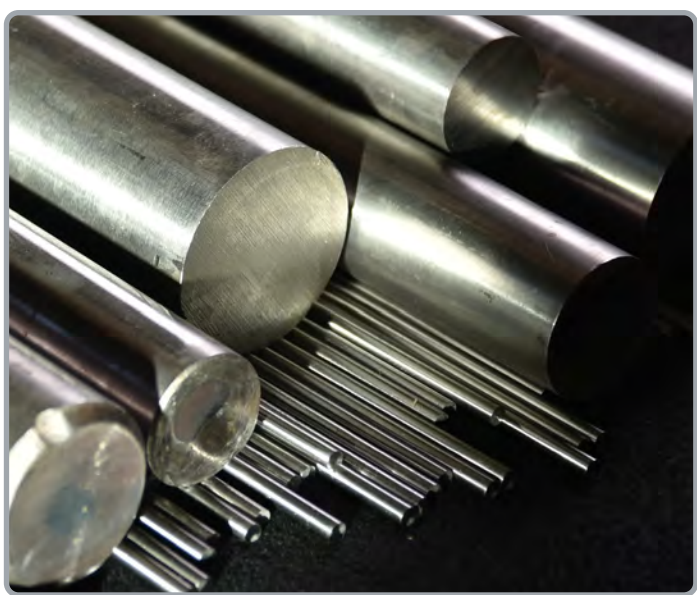
APPLICATIONS

Magnetostrictive transducers; Mechanical supports; Transistor housings; Battery cases; Anodes and grids of electronic valves.

TYPICAL PHYSICAL PROPERTIES

Density	lb/cu in	0.321
		8.89
Curie Temp	°F	680
	°C	360
Melting Point	°F	2650
	°C	1454
Electrical Resistivity	Microhms-cm	9.5
	Ohm/cir mil/ft	57
Thermal Conductivity	BTU-in/sq. ft-hr-°F (32 to 212°F)	520
Specific Heat	BTU/lbm °F (32 to 212 °F)	0.11
Thermal Expansion	in 10 ⁴ in./in./°F	7.4

Source: Nickel Cobalt and Their Alloys



FORMS | SIZES AVAILABLE

Round Bar Rod	1.000" - 2.000"
Sheet	0.030" - 0.125"
Strip Coil	0.020" - 0.062"

Listed above are our standard stock items. Our inventory fluctuates based on market demands. If you do not see the size or form you require, please call us.

TYPICAL MECHANICAL PROPERTIES*

Ultimate Tensile Strength	ksi	50
	MPa	345
Yield Strength (0.2% offset)	ksi	13
	MPa	90
Elongation in 50 mm	% in 2 in.	45

* (at room temp)

Source: Nickel Cobalt and Their Alloys, Table 3

CHEMISTRY %

Nickel 99.0 min., Manganese 0.30 max., Iron 0.10 max., Silicon 0.10 max., Copper 0.10 max., Carbon 0.10 max., Magnesium 0.010 - 0.08, Titanium 0.005 max., Sulfur 0.005 max. Source: ASTM F3, Table 3 UNS N02205 Grade 2

SPECIFICATIONS

ASTM F3 Grade 2 UNS N02205



Special Purpose Alloys & Metals From Stock

Controlled Expansion | Glass Sealing

Ed Fagan Inc. supplies the highest quality metals and alloys including materials from Carpenter Technology Corp.

Kovar® | ASTM F15 Alloy

Forms: Plate, Round Bar/Rod, Sheet, Strip/Coil
Trade Names: Kovar®, Pernifer® 2918, NILO K®, DilverP1®

Alloy 42/46/48/52

Forms: Plate, Round Bar/Rod, Sheet, Strip/Coil
Trade Names: Pernifer®40, 46, 48, 50; NILO® 42, 46, 48, 50; Glass Sealing 42, 46, 48, 52

Free-Cut Invar "36"® Alloy

Forms: Round Bar/Rod

Invar "36"® Alloy

Forms: Plate, Sheet
Trade Names: Pernifer® 36, NILO® 36, Invar

Super Invar 32-5®

Forms: Plate, Round Bar/Rod, Sheet

Refractory Metals and Alloys

Ed Fagan Inc. is your leading source for quality refractory metals & alloys. We stock DFARS Molybdenum, ML/MLS/MLR, Molybdenum TZM, Tantalum & Tungsten manufactured from Plansee.

Molybdenum

Forms: Plate, Round Bar/Rod, Sheet/Coiled Sheet, Threaded Rod/Nuts, Wire

Molybdenum Lanthanum Oxide (ML)

Forms: Sheet – Stress Relieved, Recrystallized

Molybdenum TZM

Forms: Plate, Round Bar/Rod, Sheet

Niobium

Forms: Plate, Round Bar/Rod, Sheet, Strip/Coil, Wire

Rhenium

Forms: Plate, Round Bar/Rod, Sheet, Strip/Coil

Tantalum

Forms: Plate, Round Bar/Rod, Sheet, Strip/Coil, Wire

Tungsten

Forms: Plate, Precision Cut Wire, Round Bar/Rod, Sheet

Tungsten Alloys

Forms: Blanks, Flats, Parts, Plate/Sheet, Rod, Shapes

Soft Magnetic Alloys | EMI Shielding & Laminations

Ed Fagan Inc. is a distributor of "EMI shielding alloys" for VDM Metals GmbH the world's leading producer of these alloys.

EFI Alloy 50

Forms: Round Bar/Rod, Square Bar, Strip/Coil, Wire Rod
Trade Names: High Permeability 49®, Magnifer® 50

EFI Alloy 79

Forms: Rectangular Bar, Round Bar/Rod, Sheet, Strip/Coil
Trade Names: Hipernom, HyMu80®, Magnifer® 7904, Molypermalloy, Permalloy 80®

Hiperco® 50

Forms: Strip/Coil

Hiperco® 50A

Forms: Plate, Round Bar/Rod, Strip/Coil

Hiperco® 50 HS

Forms: Strip/Coil

Carpenter VimVar Core Iron

Forms: Round Bar/Rod

Electrical & Electronic Nickels

Ed Fagan Inc. supplies select, commercially pure grades of Nickel in various forms and sizes.

Electronic Nickels

200/201/205/233/270

Forms: Round Bar/Rod, Sheet, Strip/Coil, Wire

Alloys and Metals We Distribute

Corrosion Resistant Alloys • High-Temperature Alloys • Stainless Steel
• Titanium – CP, 6 Al-4V

Ed Fagan Inc. Services

Slitting, Shearing, Saw Cutting, Grinding, Water Jet Cutting, Laser Cutting,
Custom Stocking and Consignment Programs

JUST-IN-TIME DELIVERY: All of our **standard stock** items can be **shipped within 24-hours** of your order confirmation and most are **shipped the same day**. All materials certified with shipment. For special orders and non-stock materials, contact our sales team for our competitive pricing and delivery lead times.