

15-5PH Stainless Steel

Vac Melt (XM-12)



[Request A Quote](#) >>

1-800-348-6268



15-5PH stainless steel, is a martensitic precipitation/age-hardening stainless steel similar to 17-4PH, offering higher strength and hardness along with excellent corrosion resistance up to 600°F (316°C). It has good fabricating characteristics and can be age-hardened using a single-step, low-temperature treatment tailored to achieve specific strength and toughness combinations. This balanced combination of performance and ease of use makes 15-5PH stainless steel a versatile material for applications such as rapid tooling, functional components across various industries, and prototyping.

Typical Mechanical Properties After Aging

Property	Condition H900	Condition H1150
Density	0.2820 lb/in ³	0.2830 lb/in ³
Hardness (HRC)	46	40
Ultimate Tensile Strength	210 ksi	1170 ksi
Yield Strength (0.2%)	188 ksi	145 ksi
Elongation in 2" (%)	13.9	18
Reduction of Area (%)	44	55

Forms Available

Round Bar .500" - 2.00"

Markets & Applications

- Aerospace:** Structural components, fittings.
- Industrial:** Surgical instruments, tools.
- Medical:** Pumps, valves, manifolds, impellers.
- Energy and Defense:** Process equipment.

General Hardness

- 15-5 PH provides excellent hardness levels depending on the heat treatment condition:
- H900:** Maximum hardness for applications demanding high strength.
 - H1150:** Improved ductility and toughness with moderate hardness.



CHEMISTRY

Iron (71.91–77.71%), Chromium (14.00–15.50%), Nickel (3.50–5.50%), Copper (2.50–4.50%)

SPECIFICATIONS

AMS 5659 • ASTM A564/A564M • UNS S15500

Special Purpose Alloys & Metal From Stock

[Request A Quote](#)



EFINEA

Capabilities Beyond Infinity

1-800-348-6268 | efineametals.com



EFINEA Services

Slitting, Sheering, Grinding, Water Jet Cutting, Laser Cutting, Saw 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

Controlled Expansion | Glass Sealing

EFINEA 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; 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 & Alloys

EFINEA 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

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

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

EFINEA Alloy 50

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

Trade Names: High Permeability 49®, Mangnifer®50

EFINEA 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

Core Iron (Pure Iron)

Forms: Round Bar/Rod, Plate

Trade Names: Electrical Iron®, Alliedpureiron®

Electrical & Electronic Nickels

EFINEA supplies select, Commercially pure grades of Nickel in various forms and sizes.

Electronic Nickels

200/201/205/233/270

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

Copper Metals

EFINEA supplies select, Commercially pure grades of Copper in Coil Form

Copper OFHC 101/102

Nickel-Silver 770

Cupro-Nickel 715 (CuNi 70/30)

Forms: Coil

Stainless Steels & Other Alloys

EFINEA supplies select aircraft quality grades of Stainless Steel available in various forms and sizes.

17-4PH (Type 630)

15-5PH Vac Melt

300 Grade Stainless Steel Coils

Forms: Round Bar/Coils