

AISI 4340 Alloy Steel

AISI 4340 ALLOY STEEL DATASHEET

AISI 4340 alloy steel is a medium carbon, low alloy steel known for its toughness and strength in relatively large sections. AISI 4340 alloy steel is also one kind of nickel chromium molybdenum steels. AISI 4340 alloy steel is generally supplied hardened and tempered in the tensile range of 930 – 1080 Mpa. Pre-hardened and tempered AISI 4340 alloy steel can be further surface hardened by flame or induction hardening and by nitriding. AISI 4340 alloy steel has good shock and impact resistance as well as wear and abrasion resistance in the hardened condition. AISI 4340 alloy steel properties offer good ductility in the annealed condition, allowing it to be bent or formed.

AISI 4340 alloy steel is mainly used in power transmission gears and shafts, aircraft landing gear, and other structural parts.

Product forms include bar, seamless tubing, and plate.



Standards

- UNS G43400

Physical Properties

- Density: 0.284 LB/in³ (7.85 g/cm³)
- Melting Point: 2600°F (1427°C)
- Modulus of Elasticity: 29.7 x10⁶psi (205 Gpa)
- Magnetic Permeability:

Characteristics

- good ductility and formability in the annealed condition
- high strength and toughness in relatively large sections
- higher tensile/yield strength than 4140 can provide

Chemical Composition

	C	Mn	S	Si	P	Cr	Mo	Fe
MIN	0.370	0.60	-	0.15	-	0.70	0.20	95.195
MAX	0.430	0.80	0.04	0.30	0.035	0.90	0.30	96.330

Mechanical Properties

Tensile (min) KSI (Mpa)	Yield (min) KSI (Mpa)	Elongation (min) %	Reduction of Area (min) %	Hardness (max) HRB (BHN)
108 (745)	68.2 (470)	22	50	95 (217)

WWW.SPECIALTYSTEELSUPPLY.COM



SPECIALTY STEEL SUPPLY
19201 CIRCLE LAKE DR
PINEHURST, TX 77362
Call for a quote (281) 821-7111



All information in our data sheet is based on approximate testing and is stated to the best of our knowledge and belief. It is presented apart from contractual obligations and does not constitute any guarantee of properties or of processing or application possibilities in individual cases. Our warranties and liabilities are stated exclusively in our terms of trading.
© Specialty Steel Supply