

4340

Smiths Advanced Metals

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Deep-Hardening Steel Bars

Chromium-Nickel-Molybdenum Alloy.

4340 alloy finds use in deep-hardened constructional steel applications, particularly in the production of highly stressed parts.

4340 offers remarkable ductility and toughness and at a variety of strength levels and at elevated temperatures too. The alloy often finds use in applications due to its strength and hardenability, which other carbon steel grades do not provide. With good fatigue strength, Alloy 4340 also resists embrittlement due to the materials excellent ductility. Machinability of the alloy is good using traditional methods, and fusion and resistance welding are possible.

Our 4340 steel bars find use in the production of aircraft landing gear, axles, spindles, bearing components and heavy-duty shafts. The product provides a superior combination of strength and malleability.

We stock **4340 steel bars** in various sizes and conditions (including annealed, hardened, normalised and tempered conditions).



Grades / Specifications

- AMS6414
- AMS6415
- AMS6484
- AMS-S-5000, MIL-S-5000
- ASTM A304
- ASTM A322
- BMS 7-28
- UNS G43400

Benefits

- Excellent ductility
- High strength
- Good hardenability
- Virtually immune to embrittlement

*Chemical Composition (weight %)

	C	Mn	Si	P	S	Cr	Ni	Mo	Cu
min.	0.38	0.65	0.15			0.70	1.65	0.20	
max.	0.43	0.85	0.35	0.025	0.025	0.90	2.00	0.30	0.35

* As per AMS 6415

*Mechanical Properties

Bars under 0.5"	
Tensile Strength	125 ksi max
Hardness:	27 HRC max
Bars over 0.5"	
Hardness	255 HBW max

* Properties as per AMS 6415

Hardness is for bars, forgings and tubing, normalised and tempered. Unless a surface finish is specified, the surface may be furnished hot finished or cold drawn.

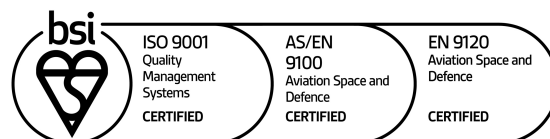
We process 4340 steel bars in-house where cut your product to accurate lengths. We also stock 4340 in a broad range of incremental sizes.

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