

# Maraging 300

Smiths Advanced Metals

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## Nickel-Cobalt Strengthened Bar

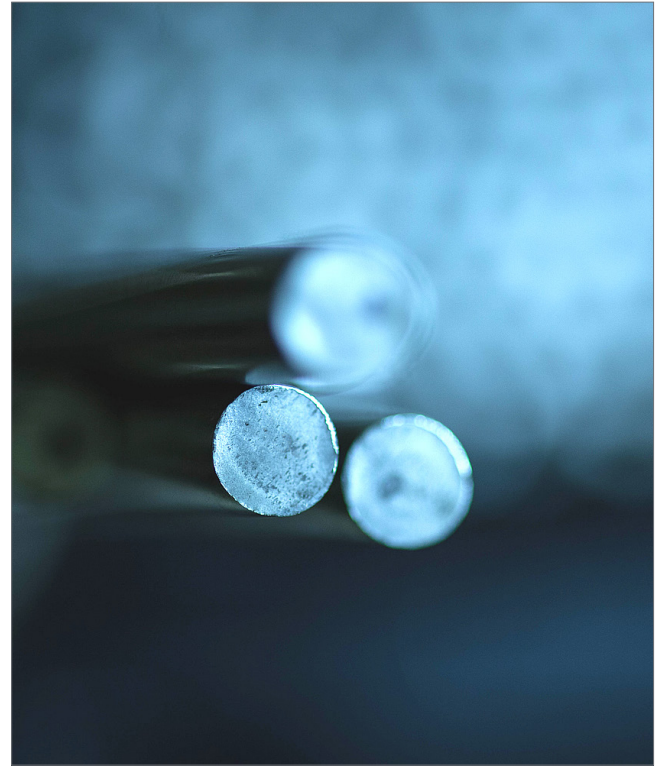
Exceptional toughness and strength.

Maraging 300 steel is stronger than 250, but fracture toughness is slightly lower. The alloy offers high strength with a tensile strength of 2035 MPa.

The strength and toughness characteristics of Maraging 300 are exceptional. Other performance benefits include excellent notch ductility, good ductility, outstanding weldability and good resistance to crack propagation. The steel alloy contains 9% cobalt and 4.8% molybdenum and is finished in the solution annealed delivery condition.

The alloy retains its mechanical strength at elevated temperatures up to 450°C and high toughness with good notch impact toughness at -50°C. Maraging 300 steel can be machined to close dimensional tolerances because low-temperature maraging treatment results in an alloy with minimal distortion. Our product can also be nitrided if required.

Smiths Advanced Metals stocks [Maraging 300 steel bars](#) in the annealed condition and in closer incremental sizes to suit your particular engineering requirements.



### Grades / Specifications

- 1.6358
- AMS6514
- MIL-S-46850
- UNS K93120

### Benefits

- Excellent mechanical properties
- Very high strength
- Excellent notch ductility
- Good resistance to crack propagation

#### \*Chemical Composition (weight %)

	C	Si	Mn	Ni	Co	Mo	Al	Ti	Fe	P	S	Cr	Cu	Ca	Zr	B
min.				18.00	8.50	4.60	0.05	0.50	Bal							
max.	0.03	0.10	0.10	19.00	9.50	5.20	0.15	0.80	Bal	0.010	0.010	0.50	0.50	0.05	0.02	0.004

\* As per AMS 6514

#### \*Mechanical Properties

Size	Direction	Tensile Strength	0.2% Yield	Elongation	Reduction of Area
up to 101.6mm (excl.)	Longitudinal	1,930 MPa min	1,862 MPa min	5% min	30% min
up to 101.6mm (excl.)	Transverse	1,930 MPa min	1,862 MPa min	4% min	25% min
101.6-254.0mm (incl.)	Longitudinal	1,896 MPa min	1,862 MPa min	4% min	25% min
101.6-254.0mm (incl.)	Transverse	1,896 MPa min	1,862 MPa min	2% min	20% min
Heat Treatment:	52 HRC min				

\* Properties as per AMS 6514, properties after maraging heat treatment

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