Maraging 250

Smiths Advanced Metals

Ultra High-Strength Steel

Cobalt-Molybdenum Maraging Alloy Steel.

Maraging 250 steel is a high strength alloy that offers ultra-high-strength and toughness.

The alloy provides improved fracture toughness compared to Maraging 300 steel but slightly less strength. The material is relatively soft and is easily machined and formed. The alloy is produced by vacuum induction melting and vacuum arc remelting (VIM + VAR). We supply Maraging 250 in the annealed condition where the microstructure consists of fine martensite. Very high tensile strength is achievable after heat treatment and precipitation hardening.

The alloy is suitable for critical applications and highly stressed parts and include engine components, aircraft landing gear and crankshafts. Maraging 250 is readily weldable and provides good notch impact toughness at temperatures below - 50°C.

Smiths Advanced Metals stocks Maraging 250 steel bars in the annealed condition and in closer incremental sizes to suit your engineering requirements.

Grades / Specifications

- 1.6359
- UNS K92890
- AMS6512
- BS S100
- BS S162
- DTD5212
- MIL-S-46850
- MSRR6551

Benefits

- Excellent workability
- Excellent mechanical properties
- Good resistance to corrosion
- Ultra high strength

*Chemical Composition (weight %)

	C	Si	Mn	Ni	Co	Mo	Al	Ti	Fe	P	S	Cr	Cu	Ca	Zr	B
min.				17.00	7.00	4.60	0.05	0.30	Bal							
max.	0.03	0.10	0.10	19.00	8.50	5.20	0.15	0.50	Bal	0.010	0.010	0.50	0.50	0.05	0.02	0.004

* As per AMS 6512

*Mechanical Properties

Size	Direction	Tensile Strength	0.2% Yield	Elongation	Reduction of Area
up to 101.6mm (excl.)	Longitudinal	1,758 MPa min	1,724 MPa min	6% min	45% min
up to 101.6mm (excl.)	Transverse	1,758 MPa min	1,724 MPa min	4% min	35% min
101.6-254.0mm (incl.)	Longitudinal	1,689 MPa min	1,655 MPa min	5% min	30% min
101.6-254.0mm (incl.)	Transverse	1,689 MPa min	1,655 MPa min	3% min	20% min
Hardness:	48 HRC min				

* Properties as per AMS 6512, properties after maraging heat treatment

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