

Maraging Steel

Typical Applications

- Missile casings
- Tooling
- Ordnance mounting blocks
- High performance motorsport components
- Couplings
- Jet engine and helicopter drive shafts
- Load cells
- Landing gear

Product Description

C200 - a maraging alloy steel containing 8.5% cobalt and 3.3% molybdenum. This steel is produced by vacuum arc re-melting to provide high strength although this is still low when compared with other maraging steels, nominally 200 ksi tensile (1380 MPa) with an above average level of toughness. The alloy retains its strength up to 450°C and good notch impact is maintained down to minus 50°C and below. This material may be nitrided. C200 is usually supplied in the annealed condition where the microstructure consists of fine martensite before final heat treatment.

Machining & Welding

Maraging steels are usually machined in the annealed condition, however, they can be machined in the maraged condition. Components can be machined close to finished dimensions as the low temperature maraging treatment results in minimal distortion. In addition, the small contraction of approximately 0.05% due to maraging results in good dimensional stability.

C200 steel has good weldability.

Availability

Bar and forgings.

Related Specifications

- UNS K29810

Chemical Composition (weight %)

	Ni	Co	Mo	Ti	Al	Si	Mn	C	S	P	Zr	B
Min	18.50	8.50	3.25	0.20	0.10							
Max						0.10	0.10	0.03	0.01	0.01	0.01	0.003

Mechanical Properties (after heat treatment)

Ultimate Tensile Strength	210,000	psi
0.2% Yield Strength	206,000	psi
Elongation	12	%
Reduction of Area	62	%
Notch Tensile (K=9.0)	325,000	psi

Technical Assistance

Our knowledgeable staff backed up by our resident team of qualified metallurgists and engineers, will be pleased to assist further on any technical topic.

UK Service Centres:

Smiths Belfast **02895 908 897**
 Smiths Biggleswade **01767 604 704**
 Smiths Birmingham **0121 728 4940**
 Smiths Bristol **0117 971 2800**
 Smiths Chelmsford **01245 466 664**
 Smiths Gateshead **0191 469 5428**
 Smiths Horsham **01403 261 981**

Smiths Leeds **0113 307 5167**
 Smiths Manchester **0161 794 8650**
 Smiths Norwich **01603 789 878**
 Smiths Nottingham **0115 925 4801**
 Smiths Redruth **01209 315 512**
 Smiths Verwood **01202 824 347**
 Main Office **0845 527 3331**

Quality & Testing:



www.smithmetal.com info@smithmetal.com