

C350 Maraging Steel

Product Data Sheet

High strength steel alloy

For high-performance motorsport components

Containing 12.0% cobalt and 4.8% molybdenum.

Produced by vacuum arc re-melting, C350 provides a very high strength nominally 350 ksi tensile (2415 MPa) with an above-average level of toughness. The alloy retains its tensile strength up to 450°C, and good notch impact is maintained down to minus 50°C and below. This material may be nitrided. We supply C350 in the annealed condition where the microstructure consists of fine martensite before final heat treatment.

Applications:

- High-performance motorsport components
- Missile Casings
- Tooling
- Ordnance mounting blocks
- Aircraft engine and helicopter driveshafts



Machining & Welding

Machining of C350 maraging steel is in the annealed condition; machining in the maraged condition is also possible. Components can be machined close to finished dimensions as the low-temperature maraging treatment results in minimal distortion. Weldability is good.

Chemical & Mechanical Properties

Chemical Composition (weight %)							Mechanical Properties (After Heat Treatment)	
Min	Ni	Co	Mo	Ti	Al	Si	Ultimate Tensile Strength	350,000 psi
	18.50	12.00	4.80	1.40	0.10	-	0.2% Yield Strength	340,000 psi
Max						0.10	Elongation	7 %
	Mn	C	S	P	Zr	B	Reduction of Area	35 %
Min	-	-	-	-	-	-	Notch Tensile (K=9.0)	330,000 psi
Max	0.10	0.03	0.01	0.01	0.01	0.0031		

About Smiths High Performance

Smiths High Performance is a leading stockholder and supplier of high-performance engineering materials to the global motorsport sector. We are supply partners in a range of specialist motorsport markets including Formula 1, Formula E, NASCAR, MOTO GP, WEC & WRC.