

Martensitic Steel – 9Cr1Mo

Grade: 9Cr1Mo, T9, ASTM A182, UNS S50400, ASTM A213 (analysis)

Type: Martensitic grade of steel containing 9%Cr and 1%Mo. Supplied normally in the hardened and tempered condition.

Nominal Composition	
Element	Weight %
Carbon	0.15% max
Silicon	0.25 – 1.00% max
Manganese	0.3 – 0.6% max
Phosphorus	0.025% max
Sulphur	0.025% max
Molybdenum	0.9-1.1% max
Chromium	8-10% max

Mechanical Properties:

Property	Values
Ultimate Tensile Strength	95 KSI min
0.2% Yield Strength	80 KSI min
Elongation	20% min
Reduction of Area	40% min
Hardness	22 HRC max

Notes:

Applications: tubulars, structural and pressure containing parts. Also used in boilers and heat exchangers. Limited use in power plant components.