

# Material: SAE 4150

## Standard Specification for Estimated Mechanical Properties and Machinability of Steel Bars

**Group:** Ferrous Mild Steel Alloys

**Sub Group:** SAE 4150 Estimated Mechanical Properties and Machinability of Steel Bars

**Application:** Intended for Valve, Pump, General Engineering, Automotive and Other Industries

**Grade Belongs to the Industry:** Bar, Wire, Tube and Forging

Chemical Composition		
Carbon	C %	0.480 - 0.530
Silicon	Si %	0.150 - 0.350
Manganese	Mn %	0.750 - 1.000
Phosphorus	P %	0.030 max.
Sulphur	S %	0.040 max.
Chromium	Cr %	0.800 - 1.100
Molybdenum	Mo %	0.150 - 0.250
Copper	Cu %	0.350 max.
Lead	Pb %	0.150 - 0.350
Iron	Fe %	Balance
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

Heat Treatment	
As- Cast or Normalizing or Annealing or Hardening + Tempering	

Mechanical Properties	
Tensile Strength in Mpa	860 - 1379
Yield Strength in Mpa	725 max.
Elongation in %	5 min.
Reduction of Area in %	20 min.
Hardness in HB	187 - 241
Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
A915 Grade SC 4130	ASTM	USA	Casting
4130	AISI	USA	Bar, Wire, Tube and Forging
J13502	UNS	USA	Bar, Wire, Tube and Forging
4150	AS	Australia	Bar, Wire, Tube and Forging
4150	AMS	USA	Bar, Wire, Tube and Forging
A 29 4130	ASTM	USA	Bar, Wire, Tube and Forging
A 505 4130	ASTM	USA	Sheet and Strip

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