

# Material: AISI 1541

## Standard Specification For Carbon Steel Compositions For Forging To Hot-Rolled And Cold-Finished Bar and Steel

**Group:** Ferrous Mild Steel Alloys

**Sub Group:** AISI 1541 Carbon Steel Compositions For Forging To Hot-Rolled And Cold-Finished Bar and Steel

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

**Grade Belongs to the Industry:** Bar and Steel

Chemical Composition		
Carbon	C %	0.360 - 0.440
Manganese	Mn %	1.350 - 1.650
Phosphorus	P %	0.040 max.
Sulphur	S %	0.050 max.
Aluminium	Al %	0.020 max.
Boron	B %	0.0005 - 0.003
Copper	Cu %	0.200 max.
Niobium	Nb %	0.015 max.
Silicon	Si %	0.100 max.
Vanadium	V %	0.020 max.
Iron	Fe %	Balance
-	-	-
-	-	-
-	-	-
-	-	-

Heat Treatment
As Raw or Annealing or Normalizing or Hardening and Tempering

Mechanical Properties	
Tensile Strength in Mpa	630 min.
Yield Strength in Mpa	350 min.
Elongation in %	10 min.
Reduction of Area in %	30 - 45
Hardness in HB	184 - 321
Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
G15410	SAE	USA	Bars, Wire Rods, Plates, Strip, Sheets and Tubing
1541	SAE	USA	Bars, Plates, Strip, Sheets, Tubing and Forging
A 29 1541	ASTM	USA	Bar and Steel
A 311 1541 Class A	ASTM	USA	Bar and Steel
A 311 1541 Class B	ASTM	USA	Bar and Steel
A 830 G15410	ASTM	USA	Plate and Steel
A 510 1541	ASTM	USA	Wire Rod, Round Wire and Steel

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