

# Material: SAE 1080

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

**Group:** Ferrous Mild Steel Alloys

**Sub Group:** SAE 1080 Carbon Steel Compositions For Forging To Hot-Rolled And Cold-Finished Steel

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

**Grade Belongs to the Industry:** Steel

Chemical Composition		
Carbon	C %	0.750 - 0.880
Manganese	Mn %	0.600 - 0.900
Phosphorus	P %	0.030 max.
Sulphur	S %	0.035 max.
Boron	B %	0.0005 - 0.003
Chromium	Cr %	0.150 max.
Copper	Cu %	0.200 min.
Molybdenum	Mo %	0.060 max.
Nickel	Ni %	0.200 max.
Lead	Pb %	0.150 - 0.350
Iron	Fe %	Balance
-	-	-
-	-	-
-	-	-
-	-	-

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

Mechanical Properties	
Tensile Strength in Mpa	680 - 2310
Yield Strength in Mpa	420 min.
Elongation in %	10 min.
Reduction of Area in %	25 - 40
Hardness in HB	192 - 229
Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
G10800	UNS	USA	Bars, Wire Rods, Plates, Strip, Sheets and Tubing
1080	AISI	USA	Steel and Bar
A 1040 1080	ASTM	USA	Steel
A 29 1080	ASTM	USA	Steel and Bar
A 510 1080	ASTM	USA	Wire Rods, Round Wire and Steel
A 576 10L80	ASTM	USA	Steel and Bar
A 682 G10800	ASTM	USA	Steel and Strip

**Disclaimer:** All information displayed in our data sheets are for reference purpose only and are sole property of their respective owners. Information and or material are used for educational purposes only. Data at actual may vary at actual and case to case basis. ICAST Alloys LLP does not guarantee validity of these parameters. Warranties and liabilities are exclusive to our terms and conditions of business.

Customer Care: +91-99090 45075 Email: [info@icastllp.com](mailto:info@icastllp.com)



+91-99090 45075



[info@icastllp.com](mailto:info@icastllp.com)



ICAST ALLOYS LLP, Plot 2527, Road H1, Kranti Gate, GIDC Metoda, Lodhika, Rajkot-360021, Gujarat, India