

# Material: AISI 1080

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

**Group:** Ferrous Mild Steel Alloys

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

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

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

Chemical Composition			Heat Treatment	
Carbon	C %	0.750 - 0.880	As Raw or Annealing or Normalizing or Hardening and Tempering	
Manganese	Mn %	0.600 - 0.900		
Phosphorus	P %	0.040 max.		
Sulphur	S %	0.050 max.		
Boron	B %	0.0005 - 0.003		
Aluminium	Al %	0.020 min.		
Copper	Cu %	0.200 min.		
Niobium	Nb %	0.015 min.		
Silicon	Si %	0.100 max.		
Vanadium	V %	0.020 min.	<b>Mechanical Properties</b>	
Iron	Fe %	Balance		
-	-	-		
-	-	-		
-	-	-		
-	-	-		
-	-	-		
-	-	-		
			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	SAE	USA	Steel
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

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