

## Material: ASTM A 29 1084

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

**Group:** Ferrous Mild Steel Alloys

**Sub Group:** ASTM A 29 1084 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 %	0.800 - 0.930	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		
Silicon	Si %	0.100 max.		
Copper	Cu %	0.200 min.		
Aluminium	Al %	0.020 min.		
Niobium	Nb %	0.015 min.		
Vanadium	V %	0.020 min.	Mechanical Properties	
Iron	Fe %	Balance	Tensile Strength in Mpa	690 - 820
-	-	-	Yield Strength in Mpa	450 min.
-	-	-	Elongation in %	10 min.
-	-	-	Reduction of Area in %	25 - 40
-	-	-	Hardness in HB	192 - 241
-	-	-	Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
G10840	UNS	USA	Bars, Wire Rods, Plates, Strip, Sheets and Tubing
1084	SAE	USA	Steel
1084	AISI	USA	Steel and Bar
A 1040 1084	ASTM	USA	Steel
A 510 1084	ASTM	USA	Wire Rods, Round Wire and Steel
A 576 10L84	ASTM	USA	Steel and Bar
A 713 G10840	ASTM	USA	Steel and Bar

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