



## **Material - ASTM A 1040 1090**

Standard Specification For Carbon Steel Compositions For Forging To Hot-Rolled Steel

**Group - Ferrous Mild Steel Alloys** 

Sub Group - ASTM A 1040 1090 Carbon Steel Compositions For Forging To Hot-Rolled Steel Application - Intended for Valve, Pump, General Engineering, Automotive and Other Industries Grade Belongs to the Industry - Steel

Chemical Composition			Heat Treatment	
Carbon	C %	0.850 - 0.980	As Raw or Annealing or Normalizing or Hardening and Tempering	
Manganese	Mn %	0.600 - 0.900		
Phosphorus	P %	0.030 max.		izing or Hardoning and
Sulphur	S %	0.035 max.		· ·
Silicon	Si %	0.100 max.		
Boron	В%	0.0005 - 0.003		
Copper	Cu %	0.200 max.		
Iron	Fe %	Balance		
-	-	-	Mechanical Properties	
-	-		Tensile Strength in Mpa	700 - 840
-	-	-	Yield Strength in Mpa	460 min.
-	-	-	Elongation in %	10 min.
-	-	-	Reduction of Area in %	25 - 40
-	-	-	Hardness in HB	197 - 248
-	-	-	Impac <mark>t in Joule</mark>	-

Cross Reference Table				
Material	Standard	Country Grade Belong to the Industry		
G10900	UNS	USA	Bars, Wire Rods, Plates, Strip, Sheets and Tubing	
1090	SAE	USA	Steel and Wire	
1090	AISI	USA	Steel and Wire	
A 29 1090	ASTM	USA	Steel and Bar	
A 510 1090	ASTM	USA	Wire Rod, Round Wire and Steel	
A 576 10L90	ASTM	USA	Steel and Bar	
A 713 G10900	ASTM	USA	Steel and Wire	

Further any inquiry to discuss with Gravity Cast Pvt. Ltd. – Gravity Group of Companies team member Call on +918469160029, or email marketing@gravitycastindia.com

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