



## Material - AISI 1140

**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 1140 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 %	0.370 - 0.440	As Raw or Annealing or Normalizing or Hardening and Tempering	
Manganese	Mn %	0.700 - 1.000		
Phosphorus	P %	0.040 max.		
Sulphur	S %	0.080 - 0.130		
Aluminium	Al %	0.020 max.		
Niobium	Nb %	0.015 max.		
Silicon	Si %	0.100 max.		
Vanadium	V %	0.020 max.		
Iron	Fe %	Balance	Mechanical Properties	
-	-	-	Tensile Strength in Mpa	540 - 610
-	-	-	Yield Strength in Mpa	300 min.
-	-	-	Elongation in %	12 min.
-	-	-	Reduction of Area in %	35 - 40
-	-	-	Hardness in HB	156 - 170
-	-	-	Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
G11400	UNS	USA	Bars, Wire Rods, Plates, Strip, Sheets and Tubing
1140	SAE	USA	Steel
A 1040 1140	ASTM	USA	Steel
A 29 1140	ASTM	USA	Steel and Bar
A 510 1140	ASTM	USA	Wire Rod, Round Wire and Steel
A 576 11L40	ASTM	USA	Steel and Bar
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**Further any inquiry to discuss with Gravity Cast Pvt. Ltd. – Gravity Group of Companies team member Call on +918469160029, or email [marketing@gravitycastindia.com](mailto:marketing@gravitycastindia.com)**

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