



Material - ASTM A 682 Grade 1045

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

Group - Ferrous Mild Steel Alloys

Sub Group - ASTM A 682 Grade 1045 Carbon Steel Compositions For Forging To Hot-Rolled And Cold-Finished Steel and Strip

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

Grade Belongs to the Industry - Steel and Strip

Chemical Composition			Heat Treatment	
Carbon	C %	0.430 - 0.500	As Raw or Annealing or Normalizing or Hardening and Tempering	
Manganese	Mn %	0.600 - 0.900		
Phosphorus	P %	0.030 max.		
Sulphur	S %	0.035 max.		
Silicon	Si %	0.150 - 0.300		
Iron	Fe %	Balance		
-	-	-		
-	-	-		
-	-	-		
-	-	-		
-	-	-		
-	-	-		
-	-	-		
-	-	-		
-	-	-		
-	-	-		
-	-	-		
			Mechanical Properties	
			Tensile Strength in Mpa	570 - 862
			Yield Strength in Mpa	310 min.
			Elongation in %	10 min.
			Reduction of Area in %	35 - 45
			Hardness in HB	163 - 321
			Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
G10450	UNS	USA	Bars, Wire Rods, Plates, Strip, Sheets and Tubing
1045	SAE	USA	Bars, Wire Rods, Plates, Strip, Sheets and Tubing
1045	AISI	USA	Steel and Bar
A 311 1045 Class A	ASTM	USA	Steel and Bar
A 311 1045 Class B	ASTM	USA	Steel and Bar
A 830 G10450	ASTM	USA	Plate and Steel
A 827 1045	ASTM	USA	Plate, Steel and Forging

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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