

## Material: ASTM A 1040 1023

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

**Group:** Ferrous Mild Steel Alloys

**Sub Group:** ASTM A 1040 1023 Carbon Steel Compositions For Forging To Hot-Rolled And Cold-Finished Steel

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

**Grade Belongs to the Industry:** Steel

Chemical Composition			Heat Treatment	
Carbon	C %	0.200 - 0.250	As Raw or Annealing or Normalizing or Hardening and Tempering	
Manganese	Mn %	0.300 - 0.600		
Phosphorus	P %	0.030 max.		
Sulphur	S %	0.035 max.		
Boron	B %	0.0005 - 0.003		
Copper	Cu %	0.200 max.		
Silicon	Si %	0.100 max.		
Iron	Fe %	Balance		
-	-	-	Mechanical Properties	
-	-	-	Tensile Strength in Mpa	370 - 430
-	-	-	Yield Strength in Mpa	210 min
-	-	-	Elongation in %	15 min.
-	-	-	Reduction of Area in %	40 - 50
-	-	-	Hardness in HB	111 - 121
-	-	-	Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
G10230	UNS	USA	Bars, Wire Rods, Plates, Strip, Sheets and Tubing
1023	SAE	USA	Steel
1023	AISI	USA	Steel and Bar
A 29 1023	ASTM	USA	Steel and Bar
A 29 M1023	ASTM	USA	Steel and Bar
A 510 1023	ASTM	USA	Wire Rod and Round Wire
A 513 Grade 1023	ASTM	USA	Tubing

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