

# Material: ASTM A 29 M1023

## 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 M1023 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 %	0.190 - 0.270	As Raw or Annealing or Normalizing or Hardening and Tempering	
Manganese	Mn %	0.250 - 0.600		
Phosphorus	P %	0.040 max.		
Sulphur	S %	0.050 max.		
Aluminium	Al %	0.020 max.		
Niobium	Nb %	0.025 max.		
Vanadium	V %	0.050 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 1040 1023	ASTM	USA	Steel
A 29 1023	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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