

# Material: ASTM A 29 1151

## 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 1151 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 %	0.480 - 0.550	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
			630 min.
			Yield Strength in Mpa
			340 min.
			Elongation in %
			10 min.
			Reduction of Area in %
			30 - 35
			Hardness in HB
			187 - 321
			Impact in Joule
			-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
G11510	UNS	USA	Bars, Wire Rods, Plates, Strip, Sheets and Tubing
1151	SAE	USA	Bars, Wire Rods, Plates, Strip, Sheets and Tubing
1151	AISI	USA	Steel and Bar
A 1040 1151	ASTM	USA	Steel
A 108 Grade 1151	ASTM	USA	Steel and Bar
A 510 1151	ASTM	USA	Wire Rod, Round Wire and Steel
A 576 11L51	ASTM	USA	Steel and Bar

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