

# Material: ASTM A 29 1212

## 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 1212 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 %	0.130 max.	As Raw or Annealing or Normalizing or Hardening and Tempering	
Manganese	Mn %	0.700 - 1.000		
Phosphorus	P %	0.070 - 0.120		
Sulphur	S %	0.160 - 0.230		
Aluminium	Al %	0.020 max.		
Niobium	Nb %	0.025 max.		
Vanadium	V %	0.050 max.		
Iron	Fe %	Balance		
-	-	-	Mechanical Properties	
-	-	-	Tensile Strength in Mpa	390 - 540
-	-	-	Yield Strength in Mpa	230 min.
-	-	-	Elongation in %	10 min.
-	-	-	Reduction of Area in %	35 - 45
-	-	-	Hardness in HB	110 - 255
-	-	-	Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
G12120	UNS	USA	Bars, Wire Rods, Plates, Strip, Sheets and Tubing
1212	SAE	USA	Bars, Wire Rods, Plates, Strip, Sheets and Tubing
1212	AISI	USA	Steel and Bar
A 1040 1212	ASTM	USA	Steel
A 576 1212	ASTM	USA	Steel and Bar
SA-29 1212	ASME	USA	Steel
A 108 Grade 1212	ASTM	USA	Steel and Bar

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