

# Material: ASTM A 1040 1022

## 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 1022 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 %	0.180 - 0.230	As Raw or Annealing or Normalizing or Hardening and Tempering	
Manganese	Mn %	0.700 - 1.000		
Phosphorus	P %	0.030 max.		
Sulphur	S %	0.035 max.		
Boron	B %	0.0005 - 0.003		
Silicon	Si %	0.100 max.		
Iron	Fe %	Balance		
-	-	-	<b>Mechanical Properties</b> Tensile Strength in Mpa 379 min. Yield Strength in Mpa 230 min. Elongation in % 15 min. Reduction of Area in % 40 - 47 Hardness in HB 121 - 137 Impact in Joule -	
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Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
G10220	UNS	USA	Bars, Wire Rods and Tubing
1022	SAE	USA	Steel, Bar and Forging
1022	AISI	USA	Steel, Bar and Forging
A 108 Grade 1022	ASTM	USA	Steel and Bar
A 29 1022	ASTM	USA	Steel and Bar
A 510 1022	ASTM	USA	Wire Rod and Round Wire
A 513 Grade 1022	ASTM	USA	Tubing

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