

# Material: AISI 1022

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

**Group:** Ferrous Mild Steel Alloys

**Sub Group:** AISI 1022 Carbon Steel Compositions For Forging To Hot-Rolled And Cold-Finished Steel, Bar and Forging

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

**Grade Belongs to the Industry:** Steel, Bar and Forging

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 %	0.040 max.		
Sulphur	S %	0.050 max.		
Aluminium	Al %	0.020 - 0.050		
Niobium	Nb %	0.020 - 0.050		
Silicon	Si %	0.150 - 0.350		
Vanadium	V %	0.020 - 0.080		
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
A 1040 1022	ASTM	USA	Steel
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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