Material: SAE 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: *SAE 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		
Carbon	C %	0.180 - 0.230
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
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

Heat Treatment
As Raw or Annealing or Normalizing or Hardening and Tempering

Mechanical Properties	
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	-

Cross Reference Table			
Material	**Standard**	**Country**	**Grade Belong to the Industry**
G10220	UNS	USA	Bars, Wire Rods and Tubing
1022	AISI	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

Customer Care: +91-99090 45075 Email: info@icastllp.com