

## Material - ASTM A 29 1022

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 1022 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 %	0.180 - 0.230		
Manganese	Mn %	0.700 - 1.000	As Raw or Annealing or Normalizing or Hardening and Tempering	
Phosphorus	P %	0.040 max.		alizing or Hardoning and
Sulphur	S %	0.050 max.		<b>°</b>
Aluminium	Al %	0.020 max.		
Boron	В %	0.0005 - 0.003		
Copper	Cu %	0.200 max.		
Niobium	Nb %	0.025 max.		
Silicon	Si %	0.100 max.	Mechanical Properties	
Vanadium	V %	0.050 max.	Tensile Strength in Mpa	379 min.
Iron	Fe %	Balance	Yield Strength in Mpa	230 min.
	-	-	Elongation in %	15 min.
	-	-	Reduction of Area in %	40 - 47
-	-	-	Hardn <mark>ess in HB</mark>	121 - 137
-	-	-	Impa <mark>ct in Joule</mark>	-

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 1040 1022	ASTM	USA	Steel	
A 108 Grade 1022	ASTM	USA	Steel and Bar	
A 510 1022	ASTM	USA	Wire Rod and Round Wire	
A 513 Grade 1022	ASTM	USA	Tubing	

## Further any inquiry to discuss with Gravity Cast Pvt. Ltd. – Gravity Group of Companies team member Call on +918469160029, or email marketing@gravitycastindia.com

All information in our data sheets and website is indicative only and is not intended to be a substitute for the full specification from which it is extracted. It is intended to provide typical values to allow comparison between metal alloy option rather than a definitive statement of mechanical performance or suitability for a particular application as these will vary with temperature, product type and product application. It is presented apart from contractual obligations and does not constitute any guarantee of properties or of processing or application possibilities in individual cases. Our warranties and liabilities are stated exclusively in our terms of business.

## **ONE STOP SOLUTION FOR METAL PARTS**