



**GRAVITY CAST PVT. LTD.**  
GRAVITY GROUP OF COMPANIES

## Material - SAE J403 | SAE J1397 UNS G10120 - Hot Rolled

### Standard Specification For Carbon Steel Compositions For Forging To Hot-Rolled And Cold-Finished Bars, To Wire Rods, Plates, Strip, Sheet and Tubing

Group - Ferrous Mild Steel Alloys

Sub Group - SAE J403 | SAE J1397 UNS G10120 - Hot Rolled Carbon Steel Compositions For Forging To Hot-Rolled And Cold-Finished Bars, Wire Rods, Plates, Strip, Sheets and Tubing

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

Grade Belongs to the Industry - Bars, Wire Rods, Plates, Strip, Sheets and Tubing

Chemical Composition			Heat Treatment	
Carbon	C %	0.100 - 0.150	As Raw or Annealing or Normalizing or Hardening and Tempering	
Manganese	Mn %	0.300 - 0.600		
Phosphorus	P %	0.030 max.		
Sulphur	S %	0.050 max.		
Iron	Fe %	Balance		
-	-	-		
-	-	-		
-	-	-		
-	-	-		
-	-	-		
			Mechanical Properties	
			Tensile Strength in Mpa	330 min.
			Yield Strength in Mpa	180 min.
			Elongation in %	28 min.
			Reduction of Area in %	50 min.
			Hardness in HB	95 max.
			Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
1012	SAE	USA	Bars, Wire Rods, Plates, Strip, Sheets and Tubing
1012	AISI	USA	Bars, Wire Rods, Plates, Strip, Sheets and Tubing
A 1040 1012	ASTM	USA	Bars, Wire Rods, Plates, Strip, Sheets and Tubing
A 29 1012	ASTM	USA	Bar
A 29 M1012	ASTM	USA	Bar
A 510 1012	ASTM	USA	Wire Rod
A 512 Grade 1012	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](mailto: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.

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