



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

## Material - ASME SA-29 Grade 1012

Standard Specification for Steel Bars, Carbon and Alloy, Hot-Wrought and Cold-Finished,  
General Requirements For

Group - Ferrous Mild Steel Alloys

Sub Group - ASME SA-29 Grade 1012 Steel Bars, Carbon and Alloy, Hot-Wrought and Cold-Finished, General  
Requirements For

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

Grade Belongs to the Industry - Steel and Bars

Chemical Composition			Heat Treatment	
Carbon	C %	0.100 - 0.150	As-Raw or Annealing or Normalizing or Hardening + Tempering	
Manganese	Mn %	0.300 - 0.600		
Phosphorus	P %	0.040 max.		
Sulphur	S %	0.050 max.		
Iron	Fe %	Balance		
-	-	-		
-	-	-		
-	-	-		
-	-	-		
-	-	-		
			Mechanical Properties	
-	-	-	Tensile Strength in Mpa	-
-	-	-	Yield Strength in Mpa	-
-	-	-	Elongation in %	-
-	-	-	Reduction of Area in %	-
-	-	-	Hardness in HB	-
-	-	-	Impact in Joule	-

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Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
G10120	UNS	USA	Forging and Bars
SAE J 403 1012	AISI	USA	Bars, Wire Rods and Tubing
J 403 1012	SAE	USA	Steel
A 576 1012	ASTM	USA	Steel and Bars
A 510 1012	ASTM	USA	Steel and Wire Rods
A 519 1012	ASTM	USA	Steel and Tubing
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.

**ONE STOP SOLUTION FOR METAL PARTS**