



## Material - AISI 1049

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

**Group - Ferrous Mild Steel Alloys** 

Sub Group - AISI 1049 Carbon Steel Compositions For Forging To Hot-Rolled And Cold-Finished Bar Application - Intended for Valve, Pump, General Engineering, Automotive and Other Industries Grade Belongs to the Industry - Bar

Chemical Composition			Heat Treatment	
Carbon	C %	0.460 - 0.530		
Manganese	Mn %	0.600 - 0.900	As Raw or Annealing or Normalizing or Hardening and Tempering	
Phosphorus	P %	0.040 max.		alizing or Hardoning and
Sulphur	S %	0.050 max.		· ·
Boron	В%	0.0005 - 0.003		iig
Aluminium	Al %	0.020 max.		
Copper	Cu %	0.200 max.		
Niobium	Nb %	0.015 max.		
Silicon	Si %	0.100 max.	Mechanical Properties	
Vanadium	V %	0.020 max.	Tensile Strength in Mpa	600 - 670
Iron	Fe %	Balance	Yield Strength in Mpa	330 min.
-	-	-	Elongation in %	10 min.
-	-	-	Reduction of Area in %	30 - 40
-	-	-	Hardn <mark>ess in HB</mark>	179 - 197
-	-	-	Impact in Joule	-

Cross Reference Table					
Material	Standard	Country Grade Belong to the Industry			
G10490	UNS	USA	Bars, Wire Rods, Plates, Strip, Sheets and Tubing		
1049	SAE	USA	Steel		
A 830 G10490	ASTM	USA	Plate and Steel		
A 830 1049	ASTM	USA	Plate and Steel		
A 576 10L49	ASTM	USA	Steel		
A 29 1049	ASTM	USA	Steel and Bar		
A 510 1049	ASTM	USA	Wire Rods, Round Wire and Steel		

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

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