



## Material - ASTM A 29 1049

**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 1049 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 %	0.460 - 0.530	As Raw or Annealing or Normalizing or Hardening and Tempering	
Manganese	Mn %	0.600 - 0.900		
Phosphorus	P %	0.040 max.		
Sulphur	S %	0.050 max.		
Silicon	Si %	0.100 max.		
Boron	B %	0.0005 - 0.003		
Copper	Cu %	0.200 max.		
Aluminium	Al %	0.020 max.		
Niobium	Nb %	0.015 max.		
Vanadium	V %	0.020 max.		
Iron	Fe %	Balance	<b>Mechanical Properties</b> Tensile Strength in Mpa      600 - 670 Yield Strength in Mpa      330 min. Elongation in %      10 min. Reduction of Area in %      30 - 40 Hardness in HB      179 - 197 Impact in Joule      -	
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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
1049	AISI	USA	Bar
A 830 G10490	ASTM	USA	Plate and Steel
A 830 1049	ASTM	USA	Plate and Steel
A 576 10L49	ASTM	USA	Steel
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](mailto:marketing@gravitycastindia.com)**

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