



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

## Material - ASTM A 108 1045

**Standard Specification for Steel Bars, Carbon, Cold-Finished and Standard Quality**

**Group - Ferrous Mild Steel Alloys**

**Sub Group - ASTM A 108 1045 Steel Bars, Carbon, Cold-Finished and Standard Quality**

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

**Grade Belongs to the Industry - Bar, Wire, Tube and Forging**

Chemical Composition			Heat Treatment	
Carbon	C %	0.430 - 0.500	As- Cast or Normalising or Annealing or Hardening + Tempering	
Manganese	Mn %	0.600 - 0.900		
Phosphorus	P %	0.040 max.		
Sulphur	S %	0.050 max.		
Silicon	Si %	0.100 max.		
Lead	Pb %	0.150 - 0.350		
Iron	Fe %	Balance		
-	-	-		
-	-	-	Mechanical Properties	
-	-	-	Tensile Strength in Mpa	570 - 862
-	-	-	Yield Strength in Mpa	310 min.
-	-	-	Elongation in %	10 min.
-	-	-	Reduction of Area in %	35 - 45
-	-	-	Hardness in HB	163 - 321
-	-	-	Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
A915 Grade SC 1045	ASTM	USA	Casting
J04502	UNS	USA	Bar, Wire, Tube and Forging
1045	AISI	USA	Bar, Wire, Tube and Forging
1045	AS	Australia	Bar, Wire, Tube and Forging
1045	SAE	USA	Bar, Wire, Tube and Forging
1045	AMS	USA	Bar, Wire, Tube and Forging
A 29 1045	ASTM	USA	Bar, Wire, Tube and Forging

**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**