GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

Material - ASTM A322 Grade 81B45

Standard Specification for Steel Bars, Alloy, Standard Grades

Group - Ferrous Mild Steel Alloys

Sub Group - ASTM A322 Grade 81B45 Steel Bars, Alloy, Standard Grades

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

Grade Belongs to the Industry - Bars

Chemical Composition		
Carbon	C %	0.430 - 0.480
Manganese	Mn %	0.750 - 1.000
Phosphorus	P %	0.035 max.
Sulphur	S %	0.040 max.
Silicon	Si %	0.150 - 0.350
Nickel	Ni %	0.200 - 0.400
Chromium	Cr %	0.350 - 0.550
Molybdenum	Mo %	0.080 - 0.150
Boron	B %	0.005 - 0.003
Iron	Fe %	Balance
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

Heat Treatment
As-Raw or Annealing or Spheroidize Annealing or Stress Relieved

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**
G81451	UNS	USA	Steel
SAE J 1249 81B45	AISI	USA	Steel
81B45 H	AISI	USA	Steel
J 1249 81B45	SAE	USA	Steel
J 1397 81B45	SAE	USA	Steel and Bars
A 29 81B45	ASTM	USA	Steel and Bars
A 752 Grade 81B45	ASTM	USA	Steel and Wire Rods

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