GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

Material - SAE J 1249 Grade 81B45

Standard Specification for Chemical Compositions of SAE Experimental Steels

Group - Ferrous Mild Steel Alloys

Sub Group - SAE J 1249 Grade 81B45 Chemical Compositions of SAE Experimental Steels

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

Grade Belongs to the Industry - Steel

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
Chromium	Cr %	0.350 - 0.550
Nickel	Ni %	0.200 - 0.400
Molybdenum	Mo %	0.080 - 0.150
Boron	B %	0.0005 - 0.030
Iron	Fe %	Balance
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

Heat Treatment
As-Raw

Mechanical Properties	
Tensile Strength in Mpa	-
Yield Strength in Mpa	-
Elongation in %	-
Reduction of Area in %	-
Hardness in HV	-
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
A 29 81B45	ASTM	USA	Steel and Bars
A 519 81B45	ASTM	USA	Steel and Tubing
A 752 Grade 81B45	ASTM	USA	Steel and Wire Rods
SA-29 Grade 81B45	ASME	USA	Steel and Bars

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.