



Material - UNS J82090

Standard Specification for Alloy Steel Casting

Group - Ferrous Stainless Steel Alloys

Sub Group - UNS J82090 Alloy Steel Casting

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

Grade Belongs to the Industry - Casting

Chemical Composition			Heat Treatment	
Carbon	C %	0.200 max.	Normalising or Annealing or Hardening + Tempering	
Silicon	Si %	1.000 max.		
Manganese	Mn %	0.350 - 0.650		
Phosphorus	P %	0.035 max.		
Sulphur	S %	0.035 max.		
Chromium	Cr %	8.000 - 10.000		
Molybdenum	Mo %	0.9000 - 1.200		
Nickel	Ni %	0.500 max.		
Tungsten	W %	0.100 max.		
Copper	Cu %	0.500 max.		
Iron	Fe %	Balance	Mechanical Properties Tensile Strength in Mpa 620 - 795 Yield Strength in Mpa 415 min. Elongation in % 18 min. Reduction of Area in % 35 min. Hardness in BHN - Impact in Joule -	
-	-	-		
-	-	-		
-	-	-		
-	-	-		
-	-	-		

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
SA-217 Grade C12	ASME	USA	Casting
A426 Grade CP9	ASTM	USA	Casting
G X 12 CrMo 10-1	DIN	Germany	Casting
1.7389	DIN	Germany	Casting
A217 Grade C12	ASTM	USA	Casting
A217 Grade C12A	ASTM	USA	Casting
A217 J84090	ASTM	USA	Casting

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.