



Material - UNS J14049

Standard Specification for Alloy Steel Casting

Group - Ferrous Mild Steel Alloys

Sub Group - UNS J14049 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 %	0.350 - 0.450	Annealing or Normalising or Hardening + Tempering	
Silicon	Si %	0.200 - 0.800		
Manganese	Mn %	0.700 - 1.000		
Phosphorus	P %	0.040 max.		
Sulphur	S %	0.045 max.		
Chromium	Cr %	0.800 - 1.100		
Nickel	Ni %	0.500 max.		
Molybdenum	Mo %	0.150 - 0.250		
Copper	Cu %	0.500 max.		
Tungsten	W %	0.100 max.		
Iron	Fe %	Balance	Mechanical Properties Tensile Strength in Mpa 621 - 1516 Yield Strength in Mpa 725 min. Elongation in % 5 min. Reduction of Area in % 20 min. Hardness in HB 187 - 241 Impact in Joule 25.1 - 25.7 J @ RT	
-	-	-		
-	-	-		
-	-	-		
-	-	-		
-	-	-		

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
4140.0000	AISI	USA	Forging, Bar, Wire, and Shape
4140	SAE	USA	Bar, Tube, Sheet, Strip and Forging
4140	AMS	USA	Bar and Forging
K11542	UNS	USA	Steel
K14047	UNS	USA	Steel
A732 8Q	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.