



Material - AS 4140

Standard Specification for Alloy Steels - Hardened and Tempered

Group - Ferrous Mild Steel Alloys

Sub Group - AS 4140 Alloy Steels - Hardened and Tempered

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 %	0.370 - 0.440	As- Cast or Normalising or Annealing or Hardening + Tempering	
Silicon	Si %	0.100 - 0.350		
Manganese	Mn %	0.650 - 1.100		
Phosphorus	P %	0.040 max.		
Sulphur	S %	0.040 max.		
Chromium	Cr %	0.750 - 1.200		
Nickel	Ni %	0.350 max.		
Molybdenum	Mo %	0.150 - 0.300		
Copper	Cu %	0.350 max.		
Iron	Fe %	Balance		
-	-	-	Mechanical Properties Tensile Strength in Mpa 700 - 1230 Yield Strength in Mpa 480 min. Elongation in % 9 min. Reduction of Area in % - Hardness in HB 201 - 375 Impact in Joule 22 J @ RT	
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Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
A915 Grade SC 4140	ASTM	USA	Casting
J1405	UNS	USA	Bar, Wire, Tube and Forging
4140	AISI	USA	Bar, Wire, Tube and Forging
4140	SAE	USA	Bar, Wire, Tube and Forging
4140	AMS	USA	Bar, Wire, Tube and Forging
A 29 4140	ASTM	USA	Bar, Wire, Tube and Forging
A 505 4140	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

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