

## Material: SAE 8630

### Standard Specification for General Characteristics and Heat Treatments of Steels

**Group:** Ferrous Mild Steel Alloys

**Sub Group:** SAE 8630 General Characteristics and Heat Treatments of Steels

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

**Grade Belongs to the Industry:** Bar, Tube, Sheet, Strip and Forging

Chemical Composition			Heat Treatment	
Carbon	C %	0.280 - 0.330	Annealing or Normalizing or Hardening + Tempering	
Silicon	Si %	0.150 - 0.350		
Manganese	Mn %	0.700 - 0.900		
Phosphorus	P %	0.025 max.		
Sulphur	S %	0.025 max.		
Chromium	Cr %	0.400 - 0.600		
Nickel	Ni %	0.400 - 0.700		
Molybdenum	Mo %	0.150 - 0.250		
Copper	Cu %	0.350 max.	Mechanical Properties	
Iron	Fe %	Balance	Tensile Strength in Mpa	586 - 1379
-	-	-	Yield Strength in Mpa	482 min.
-	-	-	Elongation in %	8 min.
-	-	-	Reduction of Area in %	-
-	-	-	Hardness in BHN	179 - 248
-	-	-	Impact in Joule	25.7 - 53.2 J @ RT

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
J13051	UNS	USA	Casting
8630	UNS	USA	Forging, Bar, Wire, and Shape
8630	AMS	USA	Bar and Forging
A732 14Q	AISI	USA	Casting
-	-	-	-
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-	-	-	-

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