

## Material: ASTM A 29 1046

### Standard Specification for Steel Castings for General Engineering Purposes

**Group:** Ferrous Mild Steel Alloys

**Sub Group:** ASTM A 29 1046 Steel Castings for General Engineering Purposes

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

**Grade Belongs to the Industry:** Casting

Chemical Composition			Heat Treatment	
Carbon	C %	0.430 - 0.500	As Cast or Annealing or Normalizing or Hardening and Tempering	
Manganese	Mn %	0.700 - 1.000		
Phosphorus	P %	0.040 max.		
Sulphur	S %	0.050 max.		
Boron	B %	0.0005 - 0.0030		
Copper	Cu %	0.200 max.		
Aluminium	Al %	0.020 max.		
Copper	Cu %	0.200 max.		
Niobium	Nb %	0.015 max.		
Vanadium	V %	0.020 max.		
Iron	Fe %	Balance	<b>Mechanical Properties</b> Tensile Strength in Mpa 590 - 650 Yield Strength in Mpa 320 min. Elongation in % 12 min. Reduction of Area in % 35 - 45 Hardness in BHN 170 - 187 Impact in Joule -	
-	-	-		
-	-	-		
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-	-	-		
-	-	-		
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Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
AW2	BS	British	Casting
1046	SAE	USA	Casting
1046	AISI	USA	Casting
A 1040 1046	ASTM	USA	Casting
A 510 1046	ASTM	USA	Casting
A 576 1046	ASTM	USA	Casting
A 830 1046	ASTM	USA	Casting

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