

## Material: ASTM A 29 1005

### Standard Specification for General Requirements for Bar

**Group:** Ferrous Mild Steel Alloys

**Sub Group:** ASTM A 29 1005 General Requirements for Bars

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

**Grade Belongs to the Industry:** Bar

Chemical Composition			Heat Treatment	
Carbon	C %	0.060 max.	As Raw or Annealing or Normalizing or Hardening and Tempering	
Manganese	Mn %	0.350 max.		
Phosphorus	P %	0.040 max.		
Sulphur	S %	0.050 max.		
Boron	B %	0.0005 - 0.003		
Copper	Cu %	0.200 max.		
Aluminium	Al %	0.020 max.		
Niobium	Nb %	0.025 max.		
Silicon	Si %	0.100 - 0.200		
Iron	Fe %	Balance	Mechanical Properties	
-	-	-	Tensile Strength in Mpa	400 min.
-	-	-	Yield Strength in Mpa	-
-	-	-	Elongation in %	-
-	-	-	Reduction of Area in %	70 min.
-	-	-	Hardness in BHN	-
-	-	-	Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
G10050	UNS	USA	Bars, Wire Rods, Plates, Strip, Sheets and Tubing
1005	SAE	USA	Bars, Wire Rods, Plates, Strip, Sheets and Tubing
1005	AISI	USA	Bars, Wire Rods, Plates, Strip, Sheets and Tubing
A 510 1005	ASTM	USA	Wire Rod
A 1040 1005	ASTM	USA	Bars, Wire Rods, Plates, Strip, Sheets and Tubing
1.03	ONORM	Australia	Wire Rod
1.0312	ONORM	Australia	Bars, Wire Rods, Plates, Strip, Sheets and Tubing

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