

## Material: AS 321

### Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications

**Group:** Ferrous Stainless Steel Alloys

**Sub Group:** AS 321 Chromium and Chromium-Nickel Stainless Steel for Pressure Vessels and for General Applications

**Application:** Intended for Valve, Pump, General Engineering, Automotive and Other Industries Grade Belongs to the

**Industry:** Steel, Sheet, Plate and Strip

Chemical Composition			Heat Treatment	
Carbon	C %	0.080 max.	Solution Annealing	
Silicon	Si %	0.750 max.		
Manganese	Mn %	2.000 max.		
Phosphorus	P %	0.045 max.		
Sulphur	S %	0.030 max.		
Chromium	Cr %	17.000 - 19.000		
Molybdenum	Mo %	0.350 max.		
Nickel	Ni %	9.000 - 12.000	Mechanical Properties	
Titanium	Ti %	0.700 max.		
Copper	Cu %	0.350 max.	Tensile Strength in Mpa	520 min.
Nitrogen	N %	0.100 max.	Yield Strength in Mpa	205 min.
Iron	Fe %	Balance	Elongation in %	40 min.
-	-	-	Reduction of Area in %	-
-	-	-	Hardness in BHN	217 max.
-	-	-	Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
A240 UNS S32100	ASTM	USA	Steel, Plate, Sheet and Strip
321	AISI	USA	Steel and Tube
321	AMS	USA	Sheet, Bar, Wire, Shape and Forging
321	SAE	USA	Steel
STS 316	KS	Korea	Steel, Sheet, Plate and Strip
SUS 321	JIS	Japan	Steel, Sheet, Plate and Strip
A182 F321	ASTM	USA	Steel, Pipe and Forging

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