

# Material: AS 405

## 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 405 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		
Carbon	C %	0.080 max.
Silicon	Si %	1.000 max.
Manganese	Mn %	1.000 max.
Phosphorus	P %	0.040 max.
Sulphur	S %	0.030 max.
Chromium	Cr %	11.500 - 14.500
Molybdenum	Mo %	0.350 max.
Nickel	Ni %	0.600 max.
Aluminium	Al %	0.100 - 0.300
Copper	Cu %	0.350 max.
Iron	Fe %	Balance
-	-	-
-	-	-
-	-	-
-	-	-

Heat Treatment	
Annealing or Hardening + Tempering	

Mechanical Properties	
Tensile Strength in Mpa	415 min.
Yield Strength in Mpa	170 min.
Elongation in %	20 min.
Reduction of Area in %	-
Hardness in HB	183 min.
Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
A240 UNS S40500	ASTM	USA	Steel, Plate, Sheet and Strip
S40500	UNS	USA	Steel
405	AISI	USA	Steel
405	AMS	USA	Sheet, Bar, Wire, Shape and Forging
405	SAE	USA	Sheet, Bar, Wire, Shape and Forging
STS 405	KS	Korea	Steel and Wire
SUS 405	JIS	Japan	Steel, Plate and Sheet

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