

Material - ASTM A213 Alloy 20

Standard Specification for Seamless Ferritic and Austenitic Alloy-Steel Boiler, Superheater and Heat-Exchanger Tubes

Group - Non-Ferrous Nickel Alloys

Sub Group - ASTM A213 Alloy 20 Seamless Ferritic and Austenitic Alloy-Steel Boiler, Superheater and Heat-Exchanger Tubes

Application - Intended for Valve, Pump, General Engineering, Automotive and other Industries

Grade Belongs to the Industry - Tube

Chemical Composition			Heat Treatment	
Carbon	C %	0.070 max.	As-Cast or Annealing or Age Hardning	
Silicon	Si %	1.000 max.		
Manganese	Mn %	2.000 max.		
Chromium	Cr %	19.000 - 21.000		
Sulphur	S %	0.035 max.		
Molybdenum	Mo %	2.000 - 3.000		
Copper	Cu %	3.000 - 4.000		
Nb + Ta	Nb% + Ta%	1.000 max.		
Phosphorus	P %	0.045 max.	Mechanical Properties	
Nickel	Ni %	32.000 - 38.000	Tensile Strength in Mpa	550 min.
Iron	Fe %	Balance	Yield Strength in Mpa	240 min.
-	-	-	Elongation in %	30 min.
-	-	-	Reduction of Area in %	-
-	-	-	Hardness in BHN	217 max.
-	-	-	Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
Incoloy Alloy 020	Gravity	India	Pipe, Tube, Sheet, Strip, Plate, Hexagon and Wire
A 312 Alloy 20	ASTM	USA	Pipe
A 312 N08020	ASTM	USA	Pipe
AS-312 Alloy 20	ASME	USA	Pipe
SA 213 Alloy 20	ASME	USA	Tube
SA-312 Alloy 20	ASME	USA	Pipe
NCF020	JIS	Japan	Plate, Sheet and Strip

For any further inquiries, please do not hesitate to contact us. You may visit our website at AMTECH TECHNOCAST PVT. LTD., call us at [+91 9879817994](tel:+919879817994), or email us at manish@amtechtechnocast.com

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