



## Material - ASTM A 213 S31277

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

**Group - Non-Ferrous Nickel Alloys**

**Sub Group - ASTM A 213 S31277 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 %	0.020 max.	As-Cast or Annealing or Age Hardning	
Silicon	Si %	0.500 max.		
Manganese	Mn %	3.000 max.		
Chromium	Cr %	20.500 - 23.000		
Molybdenum	Mo %	6.500 - 8.000		
Copper	Cu %	0.500 - 1.500		
Nitrogen	N %	0.300 - 0.400		
Nickel	Ni %	26.000 - 28.000		
-	-	-	Mechanical Properties	
-	-	-	Tensile Strength in Mpa	770 min.
-	-	-	Yield Strength in Mpa	360 min.
-	-	-	Elongation in %	40 min.
-	-	-	Reduction of Area in %	-
-	-	-	Hardness in HRC	100 max.
-	-	-	Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
Incoloy 27-7MO	Gravity	India	Sheet, Plate, Bar and Wire
A 240 S31277	ASTM	USA	Plate, Sheet and Strip
A 249 S31277	ASTM	USA	Tube
A 312 S31277	ASTM	USA	Pipe
A 580 S31277	ASTM	USA	Wire
A 959 S31277	ASTM	USA	Pipe
SA-213 S31277	ASME	USA	Tube

**Further any inquiry to discuss with Gravity Cast Pvt. Ltd. – Gravity Group of Companies team member Call on +918469160029, or email [marketing@gravitycastindia.com](mailto:marketing@gravitycastindia.com)**

All information in our data sheets and website is indicative only and is not intended to be a substitute for the full specification from which it is extracted. It is intended to provide typical values to allow comparison between metal alloy option rather than a definitive statement of mechanical performance or suitability for a particular application as these will vary with temperature, product type and product application. It is presented apart from contractual obligations and does not constitute any guarantee of properties or of processing or application possibilities in individual cases. Our warranties and liabilities are stated exclusively in our terms of business.