



GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

Material - ASTM A213 S 32050

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

Group - Ferrous Stainless Steel Alloys

Sub Group - ASTM A 213/A213M- 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 - Tubes for Superheater and Heat exchanger

Chemical Composition			Heat Treatment	
Carbon	C %	0.030 max.	Solution Annealing	
Silicon	Si %	1.000 max.		
Manganese	Mn %	1.500 max.		
Phosphorus	P %	0.035 max.		
Sulphur	S %	0.020 max.		
Chromium	Cr %	22.000 - 24.000		
Nickel	Ni %	20.000 - 23.000		
Molybdenum	Mo %	6.000 - 6.8000		
Copper	Cu %	0.400 max.		
Nitrogen	N %	0.210 - 0.320		
Iron	Fe %	Balance	Mechanical Properties	
-	-	-	Tensile Strength in Mpa	675 min.
-	-	-	Yield Strength in Mpa	330 min.
-	-	-	Elongation in %	40 min.
-	-	-	Reduction of Area in %	-
-	-	-	Hardness in HB	256 max.
-	-	-	Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
A240 S 32050	ASTM	USA	Plate, Sheet and Strip
A358 S 32050	ASTM	USA	Pipes
A959 S 32050	ASTM	USA	Plate, Sheet and Strip
A249 S 32050	ASTM	USA	Tubes for Superheater and Heat exchanger
S 32050	UNS	USA	Plate, Sheets and , Strip
A743 CK35MN	ASTM	USA	Casting
STS 350	KS	Korea	Casting

Further any inquiry to discuss with Gravity Cast Pvt. Ltd. – Gravity Group of Companies team member Call on +918469160029, or email 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.

ONE STOP SOLUTION FOR METAL PARTS