



**GRAVITY CAST PVT. LTD.**  
GRAVITY GROUP OF COMPANIES

## Material - DIN X12CrMnNiN18-9-5

**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 - DIN X12CrMnNiN18-9-5 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**

Chemical Composition			Heat Treatment	
Carbon	C %	0.150 max.	Solution Annealing	
Silicon	Si %	1.000 max.		
Manganese	Mn %	7.500 - 10.500		
Phosphorus	P %	0.045 max.		
Sulphur	S %	0.015 max.		
Chromium	Cr %	17.000 - 19.000		
Nickel	Ni %	4.000 - 6.000		
Nitrogen	N %	0.050 - 0.250		
Iron	Fe %	Balance	Mechanical Properties	
-	-	-	Tensile Strength in Mpa	600 - 880
-	-	-	Yield Strength in Mpa	320 min.
-	-	-	Elongation in %	35 min.
-	-	-	Reduction of Area in %	-
-	-	-	Hardness in BHN	-
-	-	-	Impact in Joule	60 J @ RT

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
A240 UNS S20200	ASTM	USA	Steel, Plate, Sheet and Strip
202	AISI	USA	Bar, Wire, Shape, Steel and Forging
202	SAE	USA	Bar, Wire, Shape, Steel and Forging
X12CrMnNiN18-9-5	AFNOR NF	France	Steel
X12CrMnNiN18-9-5	UNI	Italy	Steel, Sheet, Strip and Plate
X12CrMnNiN18 9 5	EN	European Union	Steel
SUS 202	JIS	Japan	Steel, Plate, Strip and Sheet

**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.

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