



GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

Material - IS 13505 Grade 4

Standard Specification for Centrifugally Cast High Alloy Steel and Nickel Base Tubing for Pressure Application at High Temperature

Group - Ferrous Stainless Steel Alloys

Sub Group - IS 13505 Centrifugally Cast High Alloy Steel and Nickel Base Tubing for Pressure Application at High Temperature

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

Grade Belongs to the Industry - Casting

Chemical Composition			Heat Treatment	
Carbon	C %	0.200 max.	Solution Annealing	
Silicon	Si %	2.000 max.		
Manganese	Mn %	1.500 max.		
Phosphorus	P %	0.040 max.		
Sulphur	S %	0.040 max.		
Chromium	Cr %	22.000 - 26.000		
Nickel	Ni %	12.000 - 15.000		
Iron	Fe %	Balance		
-	-	-	Mechanical Properties	
-	-	-	Tensile Strength in Mpa	480 min.
-	-	-	Yield Strength in Mpa	205 min.
-	-	-	Elongation in %	30 min.
-	-	-	Reduction of Area in %	-
-	-	-	Hardness in BHN	-
-	-	-	Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
A743 CH20	ASTM	USA	Casting
309	SAE	USA	Bar, Wire, Shape and Forging
1.4833	EN	European Union	Hot or Cold Rolled, Sheet, Plate, Strip, Bar and Rods
SUH 309	JIS	Japan	Bar, Wire, Rods, Sheets and Plat
X 16 CrNi 23-14	UNI	Italy	Plate, Sheets, Strip and Coil
SA-351 Grade CH 20	ASME	USA	Casting
X 15 CrNi 24-13	AFNOR NF	France	Rolled, Tubes for Pressure Service

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.

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