

## Material - IS 13505 Grade 3

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 %	0.080 max.		
Silicon	Si %	2.000 max.		
Manganese	Mn %	1.500 max.		
Phosphorus	P %	0.040 max.	Solution Annealing	
Sulphur	S %	0.040 max.		
Chromium	Cr %	18.000 - 21.000		
Nickel	Ni %	9.000 - 12.000		
Niobium	Nb %	0.080 - 1.000		
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	
-	-		Impac <mark>t in Joule</mark>	-

Cross Reference Table				
Material	Standard	Country	Grade Belong to the Industry	
A743 CF8C	ASTM	USA	Casting	
A 744 CF8C	ASTM	USA	Casting	
GX5CrNiNb 19-11	DIN	Germany	Casting	
1.4552	EN	European Union	Casting	
347 C 17	BS	British	Casting	
SCS 21	JIS	Japan	Casting	
SA 351 CF8C	ASME	USA	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.