



GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

Material - IS 3444 Grade 20

Standard Specification for Corrosion Resistant High Alloy Steel And Nickel Base Castings for General Applications

Group - Non-Ferrous Nickel Alloys

Sub Group - IS 3444 Grade 20 Corrosion Resistant High Alloy Steel And Nickel Base Castings for General Applications

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

Grade Belongs to the Industry - Casting

Chemical Composition			Heat Treatment	
Carbon	C %	0.400 max.	As-Cast or Annealing or Age Hardning	
Silicon	Si %	3.000 max.		
Manganese	Mn %	1.500 max.		
Phosphorus	P %	0.030 max.		
Sulphur	S %	0.030 max.		
Chromium	Cr %	14.000 - 17.000		
Iron	Fe %	11.000 max.		
Nickel	Ni %	Balance		
-	-	-	Mechanical Properties	
-	-	-	Tensile Strength in Mpa	480 min.
-	-	-	Yield Strength in Mpa	190 min.
-	-	-	Elongation in %	27 min.
-	-	-	Reduction of Area in %	-
-	-	-	Hardness in BHN	-
-	-	-	Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
C-NiCr15Fe	AFNOR NF	France	Pump, Valve and Fitting
NC16Fe11-M	AFNOR NF	France	Pump, Valve and Fitting
NC6040	AFNOR NF	France	Pump, Valve and Fitting
10774 Grade 12	IS	India	Casting
NCrFC	JIS	Japan	Casting
A 743 Grade CY-40	ASTM	USA	Casting
A 744 Grade CY-40	ASTM	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.

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