



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

## Material - IS 10774 Grade 12

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

**Group - Non-Ferrous Nickel Alloys**

**Sub Group - IS 10774 Grade 12 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	<b>Mechanical Properties</b> Tensile Strength in Mpa      480 min. Yield Strength in Mpa      190 min. Elongation in %      26 min. Reduction of Area in %      - Hardness in BHN      - Impact in Joule      -	
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Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
3444 Grade 20	IS	India	Casting
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
NiCrFC	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](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.

**ONE STOP SOLUTION FOR METAL PARTS**