



GRAVITY CAST PVT. LTD.
GRAVITY GROUP OF COMPANIES

Material - IS 4522 Grade 12

Standard Specification for Heat Resistant Alloy Steel and Nickel Base Castings

Group - Ferrous Stainless Steel Alloys

Sub Group - IS 4522 Grade 12 Heat Resistant Alloy Steel and Nickel Base Castings

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

Grade Belongs to the Industry - Casting

Chemical Composition			Heat Treatment	
Carbon	C %	0.350 - 0.750	As - Cast or Annealing	
Silicon	Si %	2.500 max.		
Manganese	Mn %	2.000 max.		
Phosphorus	P %	0.050 max.		
Sulphur	S %	0.050 max.		
Chromium	Cr %	13.000 - 17.000		
Nickel	Ni %	33.000 - 37.000		
Molybdenum	Mo %	0.500 max.		
Iron	Fe %	Balance		
-	-	-	Mechanical Properties Tensile Strength in Mpa 450 - 470 Yield Strength in Mpa 240 - 270 Elongation in % 3.5 - 5 Reduction of Area in % - Hardness in HB 135 - 210 Impact in Joule -	
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Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
N08605	UNS	USA	Casting
N08050	UNS	USA	Casting
A608 Grade HT 50	ASTM	USA	Casting
G X 40 NiCrSiNb 38-18	DIN	Germany	Casting
1.4849	DIN	Germany	Casting
N08005	UNS	USA	Casting
A297 Grade HU	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.

ONE STOP SOLUTION FOR METAL PARTS