



## Material - IS 4522 Grade 10

### Standard Specification for Heat Resistant Alloy Steel and Nickel Base Castings

Group - Ferrous Stainless Steel Alloys

Sub Group - IS 4522 Grade 10 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 %	0.200 - 0.600	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 %	28.000 - 32.000		
Nickel	Ni %	18.000 - 22.000		
Molybdenum	Mo %	0.500 max.		
Iron	Fe %	Balance	Mechanical Properties	
-	-	-	Tensile Strength in Mpa	460 min.
-	-	-	Yield Strength in Mpa	240 min.
-	-	-	Elongation in %	10 min.
-	-	-	Reduction of Area in %	-
-	-	-	Hardness in HB	140 - 200
-	-	-	Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
N08604	UNS	USA	Casting
SCH 23	JIS	Japan	Casting
A608 Grade HL 30	ASTM	USA	Casting
A608 Grade HL 40	ASTM	USA	Casting
N08613	UNS	USA	Casting
N08614	UNS	USA	Casting
A297 Grade HL	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.