

# Material: IS 12390

## Standard Specification for Iron-Nickel Alloy for Ceramic Sealing

**Group:** Non-Ferrous Nickel Alloys

**Sub Group:** IS 12390 Iron-Nickel Alloy for Ceramic Sealing

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

**Grade Belongs to the Industry:** Wire, Round Bar and Strip

Chemical Composition		
Carbon	C %	0.030 max.
Silicon	Si %	0.200 max.
Manganese	Mn %	0.350 max.
Chromium	Cr %	0.250 max.
Phosphorus	P %	0.025 max.
Cobalt	Co %	0.500 max.
Aluminium	Al %	0.100 max.
Sulphur	S %	0.025 max.
Nickel	Ni %	36.000 min.
Iron	Fe %	Balance
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

Heat Treatment	
As-Cast or Annealing or Age Hardning	

Mechanical Properties	
Tensile Strength in Mpa	490 min.
Yield Strength in Mpa	380 min.
Elongation in %	36 min.
Reduction of Area in %	-
Hardness in HV	135 - 165
Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
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