

Material: IS 12549

Standard Specification for Iron Nickel Cobalt Sealing Alloys

Group: Ferrous Iron-Nickel-Cobalt Alloys

Sub Group: IS 12549 Iron Nickel Cobalt Sealing Alloys

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

Grade Belongs to the Industry: Wire, Rod, Sheet and Strips

Chemical Composition			Heat Treatment	
Carbon	C %	0.040 max.	Normalizing or Annealing or Hardening + Tempering	
Silicon	Si %	0.200 max.		
Manganese	Mn %	0.500 max.		
Chromium	Cr %	0.200 max.		
Molybdenum	Mo %	0.200 max.		
Copper	Cu %	0.200 max.		
Titanium	Ti %	0.100 max.		
Zirconium	Zr %	0.100 max.		
Aluminium	Al %	0.100 max.		
Magnesium	Mg %	0.100 max.		
Nickel	Ni %	29.000 min.	Mechanical Properties	
Cobalt	Co %	17.000 min.	Tensile Strength in Mpa	520 - 860
Iron	Fe %	53.000 min.	Yield Strength in Mpa	400 min.
-	-	-	Elongation in %	27 min.
-	-	-	Reduction of Area in %	-
-	-	-	Hardness in HRC	85 max.
-	-	-	Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
AMS 77260	SAE	USA	Wire, Rod, Sheet and Strips
AMS 77270	SAE	USA	Wire, Rod, Sheet and Strips
AMS 77280	SAE	USA	Wire, Rod, Sheet and Strips
K94 610	UNS	USA	Wire, Rod, Sheet and Strips
K94 630	UNS	USA	Wire, Rod, Sheet and Strips
N94 620	UNS	USA	Wire, Rod, Sheet and Strips
N94 630	UNS	USA	Wire, Rod, Sheet and Strips

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