

# Material: ASTM A 753 Type 1

## Standard Specification for Nickel-Iron Soft Magnetic Alloys

**Group:** Non-Ferrous Nickel Alloys

**Sub Group:** ASTM A 753 Type 1 Nickel-Iron Soft Magnetic Alloys

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

**Grade Belongs to the Industry:** Forging, Billet, Hot rolled plate, Strip, Bar and Wire

Chemical Composition			Heat Treatment	
Carbon	C %	0.050 max.	As-Cast or Annealing or Age Hardning	
Silicon	Si %	0.500 max.		
Manganese	Mn %	0.800 max.		
Chromium	Cr %	0.300 max.		
Sulphur	S %	0.010 max.		
Molybdenum	Mo %	0.300 max.		
Phosphorus	P %	0.030 max.		
Cobalt	Co %	0.500 max.		
Copper	Cu %	0.300 max.		
Nickel	Ni %	43.500 - 46.500		
Iron	Fe %	Balance	Mechanical Properties	
-	-	-	Tensile Strength in Mpa	490 - 827
-	-	-	Yield Strength in Mpa	220 - 793
-	-	-	Elongation in %	2 - 38
-	-	-	Reduction of Area in %	-
-	-	-	Hardness in HRC	74 - 82
-	-	-	Impact in Joule	-

Cross Reference Table			
Material	Standard	Country	Grade Belong to the Industry
K94490	UNS	USA	Forging, Billet, Hot rolled plate, Strip, Bar and Wire
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

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