Chemical Composition		
Element	Min %	Max %
Ni	63.00	70.00
Co	-	2.00
Cu	27.00	33.00
Fe	-	2.00
Al	2.30	3.20
C	-	0.25
Si	-	1.00
Mn	-	1.50
Ti	0.35	0.85
S	-	0.01

Specifications

ASTM B865
BS 3075 NA 18
BS 3076 NA 18
ISO 15156-3
(NACE MR 0175)
QQ-N-286

Designations

W.Nr. 2.4375
UNS N05500
AWS 041

Key Features

Corrosion resistance similar to Monel 400 but with higher strength and hardness

Low permeability and is non-magnetic to temperatures as low as -101 °C (-150 °F)

Age hardenable

Good for sea water applications

Typical Applications

Pump Shafts
Fasteners
Marine Propeller Shafts
Oil Well Tools
Instruments
Springs

Density	8.44 g/cm^3	0.305 lb/in^3
Melting Point	1350 °C	2460 °F
Coefficient of Expansion	13.7 µm/m °C (20 – 100 °C)	7.6 x 10^{-6} in/in °F (70 – 212 °F)
Modulus of Rigidity	66 kN/mm^2	9573 ksi
Modulus of Elasticity	179 kN/mm^2	25962 ksi

Heat Treatment of Finished Parts					
Condition as supplied by Alloy Wire	**Type**	**Temperature**		**Time (Hr)**	**Cooling**
		°C	**°F**		
Annealed	Age Harden [Δ]	580 – 590	1075 – 1095	8 – 10	Air
Spring Temper	Age Harden [Δ]	530 – 540	985 – 1005	4 – 6	Air

[Δ] *Heat treating Monel K-500 in free air can have a detrimental effect on its corrosion resistant properties.*

Properties				
Condition	**Approx. tensile strength**		**Approx. operating temperature**	
	N/mm^2	**ksi**	**°C**	**°F**
Annealed	650 – 850	94 – 123	-100 to +260	-150 to +500
Annealed + Aged	950 – 1050	138 – 167	-100 to +260	-150 to +500
Spring Temper	1000 – 1300	145 – 189	-100 to +260	-150 to +500
Spring Temper + Aged	1200 – 1500	174 – 218	-100 to +260	-150 to +500

The above tensile strength ranges are typical. If you require different please ask.