

# Material Data Sheet



## Alloy K500

Chemical Composition	Cr	Ni	Mo	Cu	Nb + Ta	Al	Ti	C	Fe	Me	Mn	Si	P	S
% Values (minimum)		63		27		2.3	0.35	-	-		-	-	-	-
% Values (Maximum)		70	3.0	33		3.15	0.85	0.25	2		1.5	0.5		0.01

### APPLICATION

Fasteners  
Springs  
Chains  
Pump and Valve Components  
Blades and Scrapers

### DESCRIPTION

Alloy K500 is a precipitation hardenable nickel alloy with similar corrosion resistance to Alloy 400 but with greater strength and hardness which comes from its titanium and aluminium content.

### CORROSION RESISTANCE

The corrosion resistance of Alloy K500 is virtually the same as Alloy 400 with exception when in the age hardened condition, Alloy K500 is more susceptible to stress-corrosion cracking in certain environments.

Resistance to hydrogen sulphide makes Alloy K500 useful in sour-gas environments making it extremely popular in the oil patch. Low corrosion rates in sea water makes Alloy K500 suitable for marine service although pitting may occur in stagnant waters but the rate of pitting slows after initial attack.



