NICKEL ALLOY

ALLOY MP35N*

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TUBING APPLICATIONS

Alloy MP35N* (UNS R30035)

MP35N* is an age hardenable nickel-cobalt base alloy that has a unique combination of properties - ultra high strength, toughness, ductility and outstanding corrosion resistance. MP35N resists corrosion in hydrogen sulphide, salt water and other chloride solutions. It also has excellent resistance to crevice and stress corrosion cracking in sea water and other hostile environments.

Suitable where a high combination of strength, high modulus values and good corrosion resistance are required. Applications for this alloy also include medical devices and dental products.

AVAILABLE TUBE PRODUCT FORMS
STRAIGHT
SEAMLESS

TYPICAL MANUFACTURING SPECIFICATIONS
DIN ISO 5832-6 2001
Also individual customer specifications.

TYPICAL APPLICATIONS
PRESSURE HOUSING
MEDICAL IMPLANTS

INDUSTRIES PREDOMINANTLY USING THIS GRADE
CHEMICAL PROCESSES
MEDICAL
OIL AND GAS

** MP35N is a trademark of SPS Technologies, Inc. MP is a registered trademark of SPS Technologies, Inc*

Technical Data

MECHANICAL PROPERTIES		
Temper	Annealed	
Tensile Rm	28	ksi (min)
Tensile Rm	190	MPa (min)
R.p. 0.2% Yield	26	ksi (min)
R.p. 0.2% Yield	180	MPa (min)
Elongation (2" or 4D gl)	10	% (min)

PHYSICAL PROPERTIES (Room Temperature)		
Specific Heat (0-100°C)	502	J.kg-1.°K-1
Thermal Conductivity	11.2	W.m -1.°K-1
Thermal Expansion	12.8	mm/m/°C
Modulus Elasticity	234	GPa
Electrical Resistivity	6.21	µohm/cm
Density	8.43	g/cm3

CHEMICAL COMPOSITION (% by weight)		
Element	Min	Max
C	-	0.025
Si	-	0.15
Mn	-	0.15
P	-	0.015
S	-	0.010
Co	Balance	
Fe	-	1
Cr	19	21
Mo	9	10.50
Ni	33	37
Ti	-	1

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