



TECHNICAL DATASHEET

MP35N Version 0

MP35N alloy is a nonmagnetic, nickel-cobalt-chromium-molybdenum alloy. This alloy displays an exceptional resistance due to combination of ultrahigh tensile strength (up 2068 MPa), good ductility and toughness, and excellent corrosion resistance. This alloy is normally produced by vacuum induction melting (VIM), followed vacuum arc remelting

APPLICATIONS	ADVANTAGES
Medical Industrial Aerospace	Corrosion resistance good ductility Toughness
STANDARDS	SHAPES
AMS 5758 AMS 5844 AMS 5845 ANSI/ASTM F562 NACE MR-01-75	BAR ----- WIRE -----

➤ CHEMICAL COMPOSITION

%	C	Ni	Cr	Mo	Ti	Fe	Mn	Si	B	P	S	Co
min		33,0	19,0	9,0								Bal.
max	0,02	37,0	21,0	10,5	1,0	1,0	0,15	0,15	0,010	0,015	0,010	

➤ MECHANICAL PROPERTIES

Rm Tensile strength (MPa)	Rp0.2 Yield strength (MPa)	Elongation (% min)	Reduction of Area (% min)
1565	1496	14,2	60

➤ PHYSICAL PROPERTIES

Density (g/cm ³)	8,43
Hardness (HV)	145
Modulus of elasticity at 20°C (N/mm ²)	233 x10 ³
Thermal conductivity at 20°C (W/m °C)	11,24
Mean coefficient of thermal expansion at 20-200°C (mm °C)	12,8 x10 ⁻⁶
Forging temperature (°C)	1177
Fusion temperature (°C)	1440