

Brand name | Nitronic 50

Trade name | Alloy 50

Standards

Material No.	EN Designation	AISI/SAE	UNS
1.3964	X2CrNiMnMoNNb21-16-5-3	XM-19	S20910
Alloy			
50			

Description | Alloy 50 / 1.3964 is a chromium-nickel alloy.

Special properties | High tensile and high yield strength. Outstanding corrosion resistance in coastal environments. Good corrosion resistance to chloride containing media.

Chemical Composition

C %	Si ≤ %	Mn ≤ %	P ≤ %	S ≤ %
≤ 0.03	1.00	4.00-6.00	0.025	0.01
Cr %	Mo %	Ni %	N %	Nb %
20.0-21.5	3.00-3.50	15.0-17.0	0.20-0.35	≤ 0.25

Mechanical Properties 20°C

0.2% Yield strength R_e ≥ N/mm ²	Tensile strength R_m N/mm ²	Elongation A_5 ≥ %	Modulus of elasticity kN/mm ²
370	700-950	35	195

Physical Properties 20°C

Density g/cm ³	Specific heat capacity J/kg K	Thermal conductivity W/m K	Electrical resistivity Ω mm ² /m
7.9	460	14	0.81

Suitable welding filler materials | 1.3954; 1.3984

Application | Offshore

Available forms for 1.3964 / ALLOY 50

Sheets/Plates	Bars	Tubes/Pipes	Fittings	Forged / cast parts	Finished part (drawing)
					