

Alloy 20

NICKEL ALLOYS

BOLTING MATERIAL FOR HIGH TEMPERATURE SERVICE

Inconel alloy 20 is a nickel iron chromium alloy with added molybdenum and copper. It contains niobium for better stabilization against sensitisation and intergranular corrosion. The alloy has better resistance to corrosion, pitting and crevice corrosion in chemicals containing chlorides and sulphuric, phosphoric and nitric acid. And hence mostly used in tanks, piping heat exchangers, pumps, valves and other process equipment.

Chemical Properties

C	Mn	P	S	Si	Cr	Mo	Ni	Cu	Cb+Ta	Fe
0.06 Max	2.0 max	0.035 Max	0.035 Max	1.0 max	19-21	02-Mar	32.5-35.0	3.0-4.0	8.0x1.0C Mir	Balance

Mechanical Properties

Yield strength	Tensile strength	Elongation	Reduction	Hardness
Min 0.2% Mpa	Min Mpa	Min %	Min %	BHN Max
215	550	35	50	217

Physical Properties

Density	Elastic Modulus	Mean Coefficient of Thermal	Thermal Conductivity	Specific Heat	Electrical Resistivity
(Kg/m ³)	(Gpa)	Expansion(µm/m/°C)	(W/m.K)	0-100°C	(nΩ.m)
2.92	29.3x10 ⁶	--	11.5	0.12 BTU/LB ⁰ F	644 OHM-CIR MIL/FT

Heat Treatment

Solution Annealed @ 1050°C & Liquid Quenched @ 260°C

Equivalent Designation

UNS N08020
FeNi35Cr20Cu4Mo2
Werkstoff.No. 2.4660
AFNOR NiCr20CuMo

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