

Nickel 200 fasteners provide industry with excellent corrosion resistance to caustic alkali solutions such as caustic soda where it is resistant to all concentrations. Made from commercially pure nickel, this alloy also exhibits good general acid resistance, especially to hydrofluoric acid (anhydrous) and hydroxides. Though not particularly strong, Nickel 200 bolts are tough, and offer good ductility and low hardness. It is important to note that oxidizing salt solutions can severely corrode Nickel 200.

Properties

Ultimate Tensile Strength	60-85 ksi
Yield Strength at 0.2%	15-45 ksi
Elongation %	-
Usable Temperature Limit	600°F / 315°C

Key Benefits

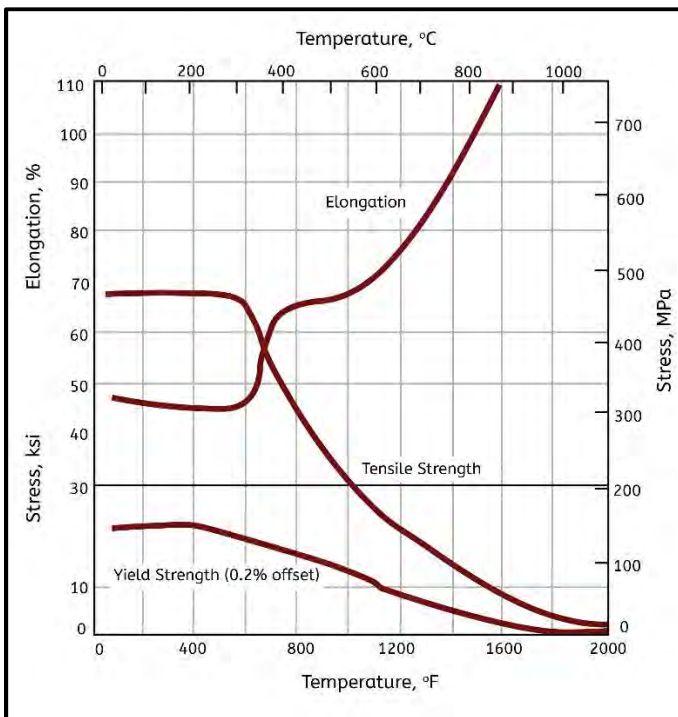
- Excellent resistance to caustic alkali solutions; especially caustic soda in all concentrations
- Good resistance to anhydrous hydrofluoric acid even at high temperatures
- High electrical and thermal conductivity, as well as magnetostrictive properties

Chemistry & Specifications

Nickel 200	Ni	Fe	Mn	Si	Cu	C	S
	99.0 min	0.40 max	0.35 max	0.35 max	0.25 max	0.15 max	0.01 max

SPECIFICATIONS: UNS N02200, EN 2.4060, EN 2.40666

Material Data



Media	Common Name	Temperature °F (°C)	Corrosion Rate (mpy)
5% CH ₃ CO ₂ H with Air	Acetic Acid	70 (21)	40
10% CH ₃ CO ₂ H	Acetic Acid	86 (30)	3.4
56% CH ₃ CO ₂ H	Acetic Acid	176 (80)	66
85% CH ₃ CO ₂ H with Air	Acetic Acid	70 (21)	400
98% CH ₃ CO ₂ H	Acetic Acid	241 (116)	12
50% NaOH	Caustic Soda	195 (90)	0.55
50% NaOH	Caustic Soda	310 (155)	0.5
75% NaOH	Caustic Soda	250 (120)	1
90% CH ₂ O ₂	Formic Acid (liquid)	70 (21)	4
90% CH ₂ O ₂	Formic Acid (vapor)	70 (21)	7
1% HCl	Hydrochloric Acid	214 (101)	680
10% HCl	Hydrochloric Acid	86 (30)	80
10% HCl	Hydrochloric Acid	221 (105)	8,000
10% HNO ₃	Nitric Acid	216 (102)	12,000
10% H ₃ PO ₄	Phosphoric Acid	75 (24)	0.6
10% H ₃ PO ₄	Phosphoric Acid	214 (101)	154
40% H ₃ PO ₄	Phosphoric Acid	75 (24)	1
500ppm NaClO	Sodium Hypochlorite	77 (25)	0.8
2% H ₂ SO ₄	Sulfuric Acid	70 (21)	2
5% H ₂ SO ₄	Sulfuric Acid	140 (60)	10
5% H ₂ SO ₄ with Air	Sulfuric Acid	86 (30)	61
19% H ₂ SO ₄	Sulfuric Acid	223 (106)	110
20% H ₂ SO ₄	Sulfuric Acid	70 (21)	4
50% H ₂ SO ₄ with Air	Sulfuric Acid	86 (30)	16
50% H ₂ SO ₄	Sulfuric Acid	255 (124)	1,000
93% H ₂ SO ₄ with Air	Sulfuric Acid	86 (30)	10