TECHNICAL DATA
AL6XN

AL6XN is a stainless steel alloy that was developed to combat seawater, but also offers moderate general corrosion protection. AL6XN fasteners deliver better resistance than Duplex steels, but not to the level of nickel alloys. AL6XN is best utilized in applications that require resistance to chlorides and saltwater such as desalination, pulp & paper and wastewater treatment.

Properties

Ultimate Tensile Strength	108 ksi
Yield Strength at 0.2%	53 ksi
Elongation %	47
Usable Temperature Limit	1000˚F / 538˚C

Key Benefits

- Excellent resistance to saltwater and chloride corrosion
- Good general corrosion resistance
- Good resistance to phosphoric acid
- 50% stronger than stainless steel

Chemistry & Specifications

AL6XN	Fe	Ni	Cr	Mo	Mn	Si	Cu	N	P	C	S
Min %	-	23.5	20.0	6.0	-	-	-	0.18	-	-	-
Max %	Bal	25.5	22.0	7.0	2.0	1.0	0.75	0.25	0.04	0.03	0.03

SPECIFICATIONS: UNS NO8367, ASTM A 240, ASTM B 688, ASME SA-240, ASME SB-688, ASTM B690, ASTM B691, ASTM A240, ASTM B688, ASME SA-240, ASME SB-688

Material Data

AL-6XN CORROSION RESISTANCE IN BOILING SOLUTIONS

Corrosion Rate in mils/year (line 1) and mm/year (line 2)

Media	TYPE 316L	TYPE 317L	ALLOY 904L	AL-6XN	ALLOY 276
20% Acetic Acid	0.12	0.48	0.59	0.12	0.48
	-0.003	-0.01	-0.02	-0.003	-0.01
45% Formic Acid	23.41	18.37	7.68	2.40	2.76
	-0.6	-0.47	-0.2	-0.06	-0.07
10% Oxalic Acid	44.9	48.03	27.13	7.32	11.24
	-1.23	-1.14	-0.69	-0.19	-0.28
20% Phosphoric Acid	0.60	0.72	0.47	0.24	0.36
	-0.02	-0.02	-0.01	-0.006	-0.009
10% Sodium Bisulfate	71.57	55.76	8.88	4.56	2.64
	-1.82	-1.42	-0.23	-0.12	-0.067
50% Sodium Hydroxide	77.69	32.78	9.61	11.4	17.77
	-1.92	-0.83	-0.24	-0.29	-0.45
10% Sulfamic Acid	124.3	93.26	9.13	9.36	2.64
	-3.16	-2.39	-0.23	-0.24	-0.067
10% Sulfuric Acid	635.7	298.3	100.8	71.9	13.93
	-16.15	-7.58	-2.53	-1.83	-0.35

Testing per ASTM G-31