



鋼種表 (鋼種・化学成分・特性・機械的性質) / Types, chemical compositions, characteristics and mechanical properties

Type			Chemical Composition (mass %)								Characteristics	Mechanical Properties					
Class	NAS	Corresponding or Alloy	C	Si	Mn	Ni	Cr	Mo	Cu	Others		Yield strength	Tensile Strength	Elongation	Hardness		
		JIS										N/mm ²	N/mm ²	%	HRB	HV	HB
Standard Austenitic Stainless Steels	NAS 301	SUS 301	≤0.15	≤1.00	≤2.00	6.00-8.00	16.00-18.00	-	-	-	Larger strength at normal temperature and Work hardnability than NAS304.	≥205	≥520	≥40	≤90	≤200	≤187
	NAS 301J1	SUS 301J1	0.08-0.12	≤1.00	≤2.00	7.00-9.00	16.00-18.00	-	-	-	General Corrosion resistance.Utensils.	≥205	≥520	≥45	≤90	≤200	≤187
	NAS 302	SUS 302	≤0.15	≤1.00	≤2.00	8.00-10.00	17.00-19.00	-	-	-	General Corrosion & Heat Resistance.	≥205	≥520	≥40	≤90	≤200	≤187
	NAS 304	SUS 304	≤0.08	≤1.00	≤2.00	8.00-10.50	18.00-20.00	-	-	-	Used for strong oxidizing acid like nitric acid, etc.heat resistance,general corrosion resistance.	≥205	≥520	≥40	≤90	≤200	≤187
	NAS 316	SUS 316	≤0.08	≤1.00	≤2.00	10.00-14.00	16.00-18.00	2.00-3.00	-	-	Used for dilute sulfuric acid,sulfurous acid and organic acid.pitting corrosion resistance	≥205	≥520	≥40	≤90	≤200	≤187
Weatherproofing Stainless Steel	NAS 304AW	SUS 304N1	≤0.08	≤1.00	≤0.50	8.00-10.50	18.00-20.00	0.20-0.60	-	0.120-0.17, S≤0.0010	Weather proofing at NAS 316 level.	≥275	≥550	≥35	≤95	≤220	≤217
Intergranular Corrosion Resistant Austenitic Stainless Steels	NAS 301L	SUS 301L	≤0.030	≤1.00	≤2.00	6.00-8.00	16.00-18.00	-	-	-	NAS 301 plus Corrosion resistance.	≥205	≥520	≥40	≤90	≤200	≤187
	NAS 304L	SUS 304L	≤0.030	≤1.00	≤2.00	9.00-13.00	18.00-20.00	-	-	-	NAS 304 plus Intergranular corrosion resistance.	≥175	≥480	≥40	≤90	≤200	≤187
	NAS 304LN	SUS 304LN	≤0.030	≤1.00	≤2.00	8.50-11.50	17.00-19.00	-	-	0.12-0.25	NAS 304L plus High tensile strength.	≥245	≥550	≥40	≤95	≤220	≤217
	NAS 321	SUS 321	≤0.08	≤1.00	≤2.00	9.00-13.00	17.00-19.00	-	-	≥5×C	NAS 304 plus Intergranular corrosion resistance, used also for high temperatures up to 650C.	≥205	≥520	≥40	≤90	≤200	≤187
	NAS 347	SUS 347	≤0.08	≤1.00	≤2.00	9.00-13.00	17.00-19.00	-	-	≥10×C	NAS 304 plus Intergranular corrosion resistance, used also for high temperatures up to 650C.	≥205	≥520	≥40	≤90	≤200	≤187
Duplex Stainless Steels	NAS 64	SUS 329J4L	≤0.030	≤0.90	≤1.00	5.50-7.20	24.00-26.00	3.00-3.50	-	0.08-0.20, W 0.05-0.30	Superior acid and pitting, crevice corrosion resistance to NAS 329J3L.	≥450	≥620	≥18	HRC≤95	≤320	≤302
High Grade Austenitic Stainless Steels	NAS 254N	SUS 317J4L	≤0.030	≤1.00	≤1.00	24.00-26.00	22.00-24.00	5.00-6.00	-	0.17-0.22	NAS 329J1 plus Superior resistance to chloride pitting corrosion.	≥295	≥635	≥35	-	≤230	-
	NAS 310ELC	-	≤0.020	≤0.03	≤2.00	19.00-22.00	24.00-26.00	-	-	-	Good corrosion resistance in high concentrated nitric acid or alkalis at elevated temperatures.	≥175	≥480	≥40	≤90	≤200	≤187
Deep Drawing-Oriented Austenitic Stainless Steels	NAS 304MK	SUS 304J2	≤0.030	≤1.00	3.60-5.00	6.50-8.00	15.50-17.00	-	1.50-2.00	-	Super deep drawing steel; as well as NAS 304 in Corrosion resistance	≤255	≤600	≥55	≤80	≤155	-
	NAS 304SS	SUS 304	≤0.08	≤1.00	≤2.00	8.00-10.50	18.00-20.00	-	-	-	For deep drawing and spinning.	≥205	≥520	≥40	≤90	≤200	≤187
	NAS 86D	-	≤0.08	≤1.00	≤3.00	6.00-9.00	15.00-18.00	-	1.00-3.00	0.40-1.00	Ultra deep drawing steel.	≥175	≥480	≥40	≤90	≤200	-
	NAS XM7	-	≤0.08	≤1.00	≤2.00	8.50-10.50	17.00-19.00	-	3.00-4.00	-	For cold Forming(outstanding non-magnetic under forming)	≥175	≥480	≥45	≤77	≤145	-
High Tensile Stainless Steels	NAS 631	SUS 631	≤0.09	≤1.00	≤1.00	6.50-7.75	16.00-18.00	-	-	0.75-1.50	Precipitation hardening martensitic steel(cold formable,cold work hardenable)	≤380 ≥960 ≥1030	≤1030 ≥1140 ≥1225	≥20 ≥3(up to 3.00) non-regulation (up to 3.00)	≤92 HRC≥35 HRC≥40	≤200 ≥345 ≥392	≤190 - -
	NAS 301N	SUS 301	≤0.15	0.80-1.00	≤2.00	6.00-8.00	16.00-18.00	-	-	0.03-0.70	NAS 301 plus High tensile strength.	≥245	≥690	≥38	≤95	≤220	-
	NAS 304N2	SUS 304N2	≤0.08	≤1.00	≤2.50	7.50-10.50	18.00-20.00	-	-	0.15-0.30Nb≤0.15	NAS 304 plus High tensile strength.	≥345	≥690	≥35	≤100	≤260	≤248
	NAS 316LN	SUS 316LN	≤0.030	≤1.00	≤2.00	10.50-14.50	16.50-18.50	2.00-3.00	-	0.12-0.22	NAS 316L plus High Strength.	≥245	≥550	≥40	≤95	≤220	≤217
Non Magnetic High Tensile Stainless Steels	NAS 305	SUS 305	≤0.12	≤1.00	≤2.00	10.50-13.00	17.00-19.00	-	-	-	NSA 304+Cold workability(Non-magnetic).	≥175	≥480	≥40	≤90	≤200	≤187
	NAS NM15M	-	0.040-0.090	≤0.90	14.00-15.00	4.00-4.60	16.50-17.50	-	-	0.30-0.35	High strength and outstanding non-magnetic under forming.	≥390	≥690	≥30	≤98	≤228	≤240
	NAS 304LGP	-	≤0.030	≤1.00	≤2.00	9.00-13.00	18.00-20.00	-	-	-	NSA 304L+Cold workability(Non-magnetic).	≥175	≥480	≥40	≤90	≤200	≤187
Austenitic Oxidation Resistant Steels	NAS 302B	SUS 302B	≤0.15	2.00-3.00	≤2.00	8.00-10.00	17.00-19.00	-	-	-	Between NAS 304 and NAS 310S in oxidation resistance.	≥205	≥520	≥40	≤95	≤218	≤207
	NAS 309S	SUS 309S	≤0.08	≤1.00	≤2.00	12.00-15.00	22.00-24.00	-	-	-	Good oxidation resistance,used also as corrosion resistant steel.	≥205	≥520	≥40	≤90	≤200	≤187
	NAS H22	-	≤0.030	≤0.70	≤0.70	19.00-23.00	23.00-24.00	-	-	0.05-0.3Ti,0.05-0.3	Oxidation resistance.	≥205	≥510	≥30	-	≤170	-
	NAS 310S	SUS 310S	≤0.08	≤1.50	≤2.00	19.00-22.00	24.00-26.00	-	-	-	Popular as oxidation resistant steel, used also as corrosion resistant steel.	≥205	≥520	≥40	≤90	≤200	≤187
Ferritic Stainless Steels	NAS 409L	SUH 409L	≤0.030	≤1.00	≤1.00	-	10.50-11.75	-	-	3×C-0.75	General Purpose Oxidation resistant steel.	≥175	≥360	≥30	≤80	≤175	≤162
	NAS 430	SUS 430	≤0.12	≤0.75	≤1.00	-	16.00-18.00	-	-	-	General Corrosion resistance.	≥205	≥450	≥22	≤88	≤200	≤183
	NAS 430LX	SUS 430LX	≤0.030	≤0.75	≤1.00	-	16.00-19.00	-	-	0.10-1.00	Improved NAS 430 concerning Weldability and Formability.	≥175	≥360	≥22	≤88	≤200	≤183
	NAS 430LM	SUS 430J1L	≤0.025	≤0.75	≤1.00	0.30-0.50	16.00-19.00	0.20-0.50	0.30-0.70	Ti+Nb)8×(C+N)-0.80	NAS 430LX plus Corrosion resistance.	≥175	≥360	≥22	≤88	≤200	≤183
	NAS 436J1L	SUS 436J1L	≤0.025	≤1.00	≤1.00	-	17.00-20.00	0.40-0.80	-	0.8(C+N)-0.80,N≤0.025	NAS 430LX plus Corrosion resistance.	≥245	≥410	≥20	≤90	≤200	≤183
	NAS 436LX	SUS 436L	≤0.025	≤1.00	≤1.00	-	16.00-19.00	0.75-1.25	-	0.8×(C+N)-0.80,N≤0.025	NAS 430LM plus Corrosion resistance.	≥245	≥410	≥20	≤96	≤230	≤192
	NAS 444	SUS 444	≤0.025	≤1.00	≤1.00	-	17.00-20.00	1.75-2.50	-	0.8×(C+N)-0.80,N≤0.025	NAS 436L plus Corrosion resistance.	≥245	≥410	≥20	≤96	≤230	≤217
	NAS 430A	SUH 21	≤0.025	≤1.50	≤1.00	-	17.5-18.5	-	-	2.5-3.2	Oxidation resistant steel.	≥245	≥440	≥15	≤95	≤220	≤217
NAS 445AM	-	≤0.025	≤0.60	≤0.50	≤0.60	21.0-23.0	1.75-2.50	0.30-0.70	0.8(C+N)-0.80,N≤0.025	Weather proofing.	≥245	≥410	≥20	≤96	≤230	≤210	
NAS 430SS	SUS 430	≤0.12	≤0.75	≤1.00	-	16.00-18.00	-	-	-	Improved deep drawing	≥205	≥450	≥22	≤88	≤200	≤183	