

Stainless Steel Grade Equivalents - 14 grades across AISI / UNS, EN 10088, JIS G4303, GB/T 20878, BS

304 = 1.4301 (X5CrNi18-10) = SUS304 = 06Cr19Ni10 (old 0Cr18Ni9); 316L = 1.4404 = SUS316L = 022Cr17Ni12Mo2; 303 = 1.4305 = SUS303 = Y12Cr18Ni9. Rating: direct = bands overlap on every element; nearest = one band differs (C or Mo); substitute = the other system splits the grade. Traps: EN caps C at <=0.07 where ASTM allows <=0.08; EN 1.4401/1.4404 Mo 2.0-2.5 vs ASTM 2.00-3.00; '420' is 1.4021/1.4028/1.4034 by carbon; A2-70 is a fastener class, not a grade.

EKINSUN LTD - custom parts machined in the drawing's grade from one piece, grade named on quote and certificate - <https://www.ekinsun.com/materials/stainless-steel-grade-equivalents/>

Crosswalk

AISI	UNS	EN 10088 name (number)	JIS	GB new (old)	BS	Rating
Austenitic 18-8 (the default stainless)						
304	S30400	X5CrNi18-10 (1.4301)	SUS304	06Cr19Ni10 (0Cr18Ni9)	304S31	direct
304L	S30403	X2CrNi18-9 (also X2CrNi19-11) (1.4307 (also 1.4306))	SUS304L	022Cr19Ni10 (00Cr19Ni10 / 00Cr18Ni9)	304S11	direct
303	S30300	X8CrNiS18-9 (1.4305)	SUS303	Y12Cr18Ni9 (Y1Cr18Ni9)	303S31	direct
Austenitic 18-10-2 with molybdenum (marine, chemical, medical)						
316	S31600	X5CrNiMo17-12-2 (1.4401)	SUS316	06Cr17Ni12Mo2 (0Cr17Ni12Mo2)	316S31	nearest
316L	S31603	X2CrNiMo17-12-2 (high-Mo: X2CrNiMo18-14-3) (1.4404 (high-Mo: 1.4435))	SUS316L	022Cr17Ni12Mo2 (00Cr17Ni14Mo2)	316S11	nearest
316Ti	S31635	X6CrNiMoTi17-12-2 (1.4571)	-	06Cr17Ni12Mo2Ti	320S31	nearest
321	S32100	X6CrNiTi18-10 (1.4541)	SUS321	06Cr18Ni11Ti (0Cr18Ni11Ti)	321S31	direct
Ferritic and martensitic chromium steels						
430	S43000	X6Cr17 (1.4016)	SUS430	10Cr17 (1Cr17)	430S17	nearest
410	S41000	X12Cr13 (1.4006)	SUS410	12Cr13 (1Cr13)	410S21	direct
420	S42000	X20Cr13 / X30Cr13 / X46Cr13 (1.4021 / 1.4028 / 1.4034)	SUS420J1 / SUS420J2	20Cr13 / 30Cr13 / 40Cr13 (2Cr13 / 3Cr13 / 4Cr13)	420S29 / 420S37 / 420S45	substitute
440C	S44004	X105CrMo17 (1.4125)	SUS440C	108Cr17 (11Cr17)	-	direct
Precipitation-hardening and duplex						
17-4 PH (630)	S17400	X5CrNiCuNb16-4 (1.4542)	SUS630	05Cr17Ni4Cu4Nb (0Cr17Ni4Cu4Nb)	-	direct
2205 (duplex)	S31803 / S32205	X2CrNiMoN22-5-3 (1.4462)	SUS329J3L	022Cr22Ni5Mo3N / 022Cr23Ni5Mo3N (00Cr22Ni5Mo3..	318S13	direct
904L	N08904	X1NiCrMoCu25-20-5 (1.4539)	-	015Cr21Ni26Mo5Cu2 (00Cr20Ni25Mo4.5Cu)	904S13	direct

Composition bands, mass % - US (ASTM) | EN (EN 10088-3)

Grade	C US	C EN	Cr US	Cr EN	Ni US	Ni EN	Mo US	Mo EN
304	<=0.08	<=0.07	18.0-20.0	17.5-19.5	8.0-10.5	8.0-10.5	-	-
304L	<=0.030	<=0.030	18.0-20.0	17.5-19.5	8.0-12.0	8.0-10.5	-	-
303	<=0.15	<=0.10	17.0-19.0	17.0-19.0	8.0-10.0	8.0-10.0	<=0.60 (ASTM A582)	-
316	<=0.08	<=0.07	16.0-18.0	16.5-18.5	10.0-14.0	10.0-13.0	2.00-3.00	2.0-2.5
316L	<=0.030	<=0.030	16.0-18.0	16.5-18.5	10.0-14.0	10.0-13.0	2.00-3.00	2.0-2.5
316Ti	<=0.08	<=0.08	16.0-18.0	16.5-18.5	10.0-14.0	10.5-13.5	2.00-3.00	2.0-2.5
321	<=0.08	<=0.08	17.0-19.0	17.0-19.0	9.0-12.0	9.0-12.0	-	-
430	<=0.12	<=0.08	16.0-18.0	16.0-18.0	<=0.75	-	-	-
410	0.08-0.15	0.08-0.15	11.5-13.5	11.5-13.5	<=0.75	<=0.75	-	-
420	>=0.15	0.16-0.25 / 0.26-0.35 / 0...	12.0-14.0	12.0-14.0	-	-	-	-
440C	0.95-1.20	0.95-1.20	16.0-18.0	16.0-18.0	-	-	<=0.75	0.40-0.80
17-4 PH (630)	<=0.07	<=0.07	15.0-17.5	15.0-17.0	3.0-5.0	3.0-5.0	-	<=0.60 (std)
2205 (duplex)	<=0.030	<=0.030	21.0-23.0 (S32205: 22.0-23.0)	21.0-23.0	4.5-6.5	4.5-6.5	2.5-3.5 (S32205: 3.0-3.5)	2.5-3.5
904L	<=0.020	<=0.020	19.0-23.0	19.0-21.0	23.0-28.0	24.0-26.0	4.0-5.0	4.0-5.0

Dual certification: European austenitic bar is certified to both the EN and the ASTM grade (1.4301/304, 1.4307/304L, 1.4404/316L). 17-4 PH: H1025 ~ +P1070, H1150 ~ +P850/P930. GB new names lead with C x 100 (06Cr19Ni10), old

names with C x 10 (0Cr18Ni9). JIS keeps the AISI number after SUS.