

Chemical Composition of Stainless Steel



Grade*	German Standard DIN	Range	C%	Mn%	P%	S%	Si%	Cr%	Ni%	Cu%	Mo%
201(Ni%:0.30)	-	Min Max	- 0.15	7.00 9.50	- 0.100	- 0.030	- 1.00	13.00 16.00	0.30 0.50	1.50 2.50	0.30
201(Ni%:0.60)	-	Min Max	- 0.15	7.00 9.50	- 0.100	- 0.030	- 1.00	13.00 16.00	0.50 0.70	1.50 2.50	0.30
202		Min Max	- 0.15	7.00 10.00	- 0.090	- 0.030	- 1.00	14.00 17.50	3.50 4.10	0.90	-
204CU	1.4597	Min Max	- 0.15	6.5 8.5	- 1.00	- 0.03	- 2.00	14.00 17.00	1.50 3.00	1.50 2.50	-
302	1.4319	Min Max	- 0.15	2.00	0.045	0.030	1.00	17.00 19.00	8.00 10.00	-	-
X M7	-	Min Max	- 0.03	- 2.00	- 0.045	- 0.03	- 1.00	17.00 19.00	8.00 10.00	3.00 4.00	- -
302HQ 304CU	1.4567	Min Max	- 0.080	- 2.00	- 0.045	- 0.030	- 1.00	17.00 19.00	8.00 10.00	3.00 4.00	- 0.75
304HC	-	Min Max	- 0.045	0.80 2.00	- 0.045	- 0.030	0.30 1.00	18.00 20.00	8.00 10.5	2.00 3.00	-
303	1.4305	Min Max	- 0.100	- 2.00	- 0.045	0.15 0.35	- 1.00	17.00 19.00	8.00 10.00	- 0.75	- 0.75
304	1.4301	Min Max	- 0.08	- 2.00	- 0.050	- 0.030	- 1.00	18.00 20.00	8.00 10.50	-	-
304L	1.4306	Min Max	- 0.03	- 2.00	- 0.050	- 0.030	- 1.00	18.00 20.00	8.00 10.50	-	-
310	1.4841	Min Max	- 0.080	- 2.00	- 0.045	- 0.040	- 0.60	24.00 26.00	19.00 22.00	- 0.75	- -
314	1.4841	Min Max	- 0.05	- 2.00	- 0.045	- 0.030	1.50 3.00	23.00 26.00	19.00 23.50	- 0.75	- -
316	1.4401	Min Max	- 0.06	- 2.00	- 0.050	- 0.030	- 1.00	16.00 18.00	10.00 14.00	-	2.00 3.00
316L	1.4404	Min Max	- 0.03	- 2.00	- 0.050	- 0.030	- 1.00	16.00 18.00	10.00 14.00	-	2.00 3.00
316Ti	1.4571	Min Max	- 0.08	- 2.00	- 0.050	- 0.030	- 0.75	16.00 18.00	10.00 14.00	Ti: 5 x C%	2.00 3.00
347 348	1.4550	Min Max	- 0.08	- 2.00	- 0.045	- 0.030	- 1.00	17.00 19.00	9.00 13.00	Cb+ta=10C	-
321	1.4541	Min Max	- 0.06	- 2.00	- 0.045	- 0.010	0.40 0.60	17.00 19.00	9.00 9.60	-	Ti: 5 x C%
430L	1.4016	Min Max	- 0.03	- 1.00	- 0.040	- 0.030	- 1.00	16.00 18.00	- 0.50	-	0.50
431	1.4057	Min Max	0.12 0.20	0.40 1.00	- 0.040	- 0.030	0.30 1.00	15.00 17.00	1.25 2.50	- 0.30	- 0.30
434	1.4113	Min Max	- 0.120	- 1.00	- 0.040	- 0.030	- 1.00	16.00 18.00	- 0.50	- 0.75	0.75 1.25

* Customized Chemistry are available
Equivalent with DIN / AFNOR / BS / JIS



AWS Grade	DIN Grade	German Standard DIN 8556	Range	C%	Mn%	P%	S%	Si%	Cr%	Ni%	Cu%	Mo%	Nb%
ER307	1.4370	WK.1.4370	Min Max	- 0.140	3.30 4.75	- 0.030	- 0.030	0.30 0.65	19.50 22.00	8.00 10.70	- 0.75	0.50 1.50	- -
ER307Si	1.437	WK.1.4370	Min Max	- 0.12	6.00 7.50	- 0.03	- 0.02	0.65 0.95	17.20 19.80	8.00 9.40	- 0.30	0.30	- -
ER308	-	WK.1.4302	Min Max	- 0.08	- 2.00	- 0.02	- 0.02	0.30 0.65	19.00 21.00	9.50 11.00	- -	- -	- -
ER308L	1.4331	WK.1.4316	Min Max	- 0.02	1.50 2.00	- 0.02	- 0.02	0.30 0.65	19.00 21.00	9.50 11.00	- -	- -	- -
ER308LSi	-	WK.1.4316	Min Max	- 0.03	1.00 2.50	- 0.03	- 0.03	0.65 1.00	19.50 22.00	9.00 11.00	- -	- -	- -
ER308L (Low % Si)	-	-	Min Max	- 0.02	1.00 2.50	- 0.02	- 0.02	- 0.25	19.50 22.00	9.00 11.00	- -	- -	- -
ER309H	-	WK.1.4829	Min Max	- 0.08	1.50 2.00	- 0.02	- 0.015	0.30 0.65	23.00 25.00	12.00 14.00	- -	- -	- -
ER309L	1.4332	WK.1.4332	Min Max	- 0.03	1.50 2.00	- 0.02	- 0.015	0.30 0.65	23.00 25.00	12.00 14.00	- -	- -	- -
ER309LSi	-	WK.1.4332	Min Max	- 0.03	1.00 2.50	- 0.02	- 0.03	0.65 1.00	23.00 25.00	12.00 14.00	- -	- -	- -
ER310	1.4842	WK.1.4842	Min Max	0.08 0.15	1.50 2.00	- 0.03	- 0.025	0.30 0.65	25.00 28.00	20.00 22.00	- -	- -	- -
ER312	1.4337	WK.1.4337	Min Max	- 0.15	- 2.00	- 0.025	- 0.025	0.30 0.65	29.00 32.00	8.00 10.00	- -	- -	- -
ER316	-	WK.1.4403	Min Max	- 0.08	- 2.00	- 0.020	- 0.020	0.30 0.65	18.00 20.00	12.00 14.00	- -	2.20 2.75	- -
ER316L	1.443	WK.1.4430	Min Max	- 0.02	1.50 2.00	- 0.020	- 0.020	0.30 0.65	18.00 20.00	12.00 14.00	- -	2.20 2.75	- -
ER316LSi	-	WK.1.4430	Min Max	- 0.030	1.00 2.50	- 0.030	- 0.030	0.65 1.00	18.00 20.00	11.00 14.00	- -	2.00 3.00	- -
ER316L (Low % Si)	-	-	Min Max	- 0.030	1.00 2.50	- 0.030	- 0.030	- 0.25	18.00 20.00	11.00 14.00	- -	2.00 3.00	- -
ER347	-	WK.1.4551	Min Max	- 0.080	1.00 2.50	- 0.030	- 0.030	0.30 0.65	19.00 21.50	9.00 11.00	- 0.75	- 0.75	- -
ER347Si	-	WK.1.4551	Min Max	- 0.080	1.00 2.50	- 0.030	- 0.030	0.65 1.00	19.00 21.00	9.00 11.00	- 0.75	- 0.75	- -
ER409Nb	-	-	Min Max	- 0.08	- 0.80	- 0.040	- 0.030	- 1.00	10.50 13.50	- 0.60	- 0.75	- 0.50	- 0.75
ER410	-	-	Min Max	- 0.12	- 0.60	- 0.030	- 0.030	- 0.50	11.50 13.50	- 0.60	- 0.75	- 0.50	- -
ER430	-	WK.1.4015	Min Max	- 0.10	- 0.60	- 0.030	- 0.030	- 0.50	15.50 17.00	- 0.60	- 0.75	- 0.75	- -
ER430Nb	-	-	Min Max	- 0.10	- 0.60	- 0.030	- 0.030	- 0.50	15.50 17.00	- 0.60	- 0.75	- 0.75	- 0.75