

AUSTENITIC STAINLESS STEELS

Grade	Element	201	202	301	303	303Se	304	304H	304L
Chemical Properties	C	<= 0.15	<= 0.15	0.05 - 0.15	<= 0.15	<= 0.15	<= 0.08	0.04 - 0.10	<= 0.035
	Si.	<= 1.00	<= 0.75	<= 2.00	<= 1.00	<= 1.00	<= 0.75	<= 0.75	<= 0.75
	Mn	5.5 - 7.4	7.5 - 10.0	<= 2.00	<= 2.00	<= 2.00	<= 2.00	<= 2.00	<= 2.00
	P (max)	<= 0.045	<= 0.06	<= 0.045	<= 0.045	<= 0.20	<= 0.04	<= 0.04	<= 0.04
	S (max)	<= 0.015	<= 0.03	<= 0.015	0.15 - 0.35	<= 0.06	<= 0.03	<= 0.03	<= 0.03
	Ni	3.50 - 5.40	4.0 - 6.00	6.00 - 9.50	8.00 - 10.00	8.00 - 10.00	8.00 - 11.00	8.00 - 11.00	8.00 - 13.00
	Cr	16.00 - 18.00	17.00 - 19.00	16.00 - 19.00	17.00 - 19.00	17.00 - 19.00	18.00 - 20.00	18.00 - 20.00	18.00 - 20.00
	Mo			<= 0.80			-	-	-
Residual	N: <= 0.25		N: <= 0.10	N: <= 0.11, Cu: <= 1.00		-	-	-	
USA	UNS	S20100	S20200	S30100	S30300	S30323	S30400	S30409	S30403
UK	BS			301S21	303S21		304S31	304S51	304S11
GERMANY	DIN	X12CrMnNiN17-7-5		X10CrNi18-8	X12CrNi18-8		X5CrNi18-10	X6CrNi18-10	X2CrNi18-9
	WERKSTOFF	1.4372		1.431	1.4305		1.4301	1.4948	1.4307

AUSTENITIC STAINLESS STEELS

Grade	Element	304LN	304N	316	316H	316L	316LN	316N	316Ti
Chemical Properties	C	<= 0.035	<= 0.08	<= 0.08	0.04 - 0.10	<= 0.035	<= 0.035	<= 0.08	<= 0.08
	Si.	<= 0.75	<= 0.75	<= 0.75	<= 0.75	<= 0.75	<= 0.75	<= 0.75	<= 0.75
	Mn	<= 2.00	<= 2.00	<= 2.00	<= 2.00	<= 2.00	<= 2.00	<= 2.00	<= 2.00
	P (max)	<= 0.04	<= 0.04	<= 0.04	<= 0.04	<= 0.04	<= 0.04	<= 0.04	<= 0.04
	S (max)	<= 0.03	<= 0.03	<= 0.03	<= 0.03	<= 0.03	<= 0.03	<= 0.03	<= 0.03
	Ni	8.00 - 11.00	8.00 - 11.00	11.00 - 14.00	11.00 - 14.00	10.00 - 15.00	10.00 - 15.00	11.00 - 14.00	11.00 - 14.00
	Cr	18.00 - 20.00	18.00 - 20.00	16.00 - 18.00	16.00 - 18.00	16.00 - 18.00	16.00 - 18.00	16.00 - 18.00	16.00 - 18.00
	Mo	-	-	2.00 - 3.00	2.00 - 3.00	2.00 - 3.00	2.00 - 3.00	2.00 - 3.00	2.00 - 3.00
Residual	N: 0.10 - 0.16	N: 0.10 - 0.16	-	-	-	N: 0.10 - 0.16	N: 0.10 - 0.16	Ti: 5 x C% <= 0.75	
USA	UNS	S30453	S30450	S31600	S31635	S31603	S31653	S31651	S31635
UK	BS	304S51		316S33	316S51	316S13	316S61		320S31
GERMANY	DIN	X2CrNi18-10		X3CrNiMo17-13-3	X6CrNiMoB17-12-2	X2CrNiMo17-12-3	X2CrNiMoN17-11-2	X6 CrNiMo Ti122E	X6CrNiMoTi17-12-2
	WERKSTOFF	1.4311		1.4436	1.4919	1.4432	1.4406		1.4571

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(M) : 8460616032 / 9601299511 (E) : info@ssglobal.in (W) : www.ssglobal.in

AUSTENITIC STAINLESS STEELS

Grade	Element	317	317L	321	347	309	310	310S	329
Chemical Properties	C	<= 0.08	<= 0.03	<= 0.08	<= 0.08	<= 0.15	<= 0.15	<= 0.08	<= 0.08
	Si	<= 0.75	<= 0.75	<= 0.75	<= 0.75	<= 0.75	<= 0.75	<= 1.50	<= 0.75
	Mn	<= 2.00	<= 2.00	<= 2.00	<= 2.00	<= 2.00	<= 2.00	<= 2.00	<= 1.00
	P (max)	<= 0.04	<= 0.045	<= 0.04	<= 0.04	<= 0.04	<= 0.04	<= 0.04	<= 0.045
	S (max)	<= 0.03	<= 0.03	<= 0.03	<= 0.03	<= 0.03	<= 0.03	<= 0.03	<= 0.03
	Ni	11.00 - 14.00	11.00 - 15.00	9.00 - 13.00	9.00 - 13.00	12.00 - 15.00	19.00 - 22.00	19.00 - 22.00	2.50 - 5.00
	Cr	18.00 - 20.00	18.00 - 20.00	17.00 - 20.00	17.00 - 20.00	22.00 - 24.00	24.00 - 26.00	24.00 - 26.00	23.00 - 28.00
	Mo	3.00 - 4.00	3.00 - 4.00	-	-	-	-	-	1.00 - 2.00
Residual	-	N: <= 0.10	Ti: 5 x C% <= 0.70	Nb + Ta: 10 x C% <= 1.00	-	-	-	-	
USA	UNS	S31700	S31703	S32100	S34700	S30900	S31000	S31000	S31260
UK	BS	317S12	317S12	321S31	347S31	309S24	310S24	310S24	
GERMANY	DIN	X2CrNiMo18-15-4		X6CrNiTi18-10	X6CrNiNb18-10	X12CrNi23-13	X8CrNi25-21	X 15 Cr Ni Si 2520	X3CrNiMoN27-5-2
	WERKSTOFF	1.4438	1.4438	1.4541	1.4550	1.4833	1.4845	1.4841	1.4460

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MARTENSITIC STAINLESS STEELS

Grade	Element	403	405	409	410	416	420	430	431
Chemical Properties	C	<= 0.15	<= 0.08	<= 0.08	<= 0.15	<= 0.15	0.16 - 0.25	<= 0.12	<= 0.20
	Si.	<= 0.50	<= 0.75	<= 1.00	<= 1.00	<= 1.00	<= 1.00	<= 0.75	<= 1.00
	Mn	<= 1.00	<= 1.00	<= 1.00	<= 1.00	<= 1.25	<= 1.00	<= 1.00	<= 1.00
	P (max)	<= 0.04	<= 0.04	<= 0.045	<= 0.04	<= 0.06	<= 0.04	<= 0.04	<= 0.04
	S (max)	<= 0.03	<= 0.03	<= 0.05	<= 0.03	<= 0.15	<= 0.03	<= 0.03	<= 0.03
	Ni	<= 0.60	<= 0.50	<= 0.50	-	-	-	<= 0.50	1.25 - 2.50
	Cr	11.50 - 13.00	11.50 - 13.50	10.50 - 11.75	11.50 - 13.50	12.00 - 14.00	12.00 - 14.00	16.00 - 18.00	15.00 - 17.00
	Mo		-	-	-	<= 0.06	-	-	
	Residual		Al: 0.10 - 0.30	Ti: 6 x C% <= 0.75				-	
USA	UNS	S40300	S40500	S40900	S41000	S41600	S42000	S43000	S41623
UK	BS	420S29	405S17	409S19	410S21	416S21	420S29	430S17	431S29
GERMANY	DIN		X6CrAl13	X2CrTi12	X10 Cr 13	X12 CrS 13	X 20 Cr 13	X6Cr17	
	WERKSTOFF	1.4024	1.4002	1.4512	1.4006	1.4005	1.4021	1.4016	1.4057

MARTENSITIC STAINLESS STEELS

Grade	Element	434	440A	440C
Chemical Properties	C	<= 0.12	0.60 - 0.75	0.95 - 1.20
	Si.	<= 1.00	<= 1.00	<= 1.00
	Mn	<= 1.00	<= 1.00	<= 1.00
	P (max)	<= 0.04	<= 0.04	<= 0.04
	S (max)	<= 0.03	<= 0.03	<= 0.03
	Ni	-	-	-
	Cr	16.00 - 18.00	16.00 - 18.00	16.00 - 18.00
	Mo	0.75 - 1.25	<= 0.75	<= 0.75
	Residual			
USA	UNS	S43400	S44002	S44004
UK	BS	434S19		
GERMANY	DIN	X8 CrMo 17		
	WERKSTOFF	1.4113		

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