

# INTERNATIONAL MATERIAL COMPARISON FOR STAINLESS STEELS

The interchangeability of the compared materials must be judged for individual cases

Werkstoff Nr.	DIN / DIN EN	AISI USA	UNS Unified	SS Swedish	AFNOR French	BS British
1.4	X6 Cr 13	410 S	S 41008	2301	Z 8 C 12	403 S 17
1.4002	X6 CrAl 13	405	S 40500		Z 8 CA 12	405 S 17
1.4003	X2 CrNi 12					
1.4005	X12 CrS 13	416	S 41600	2380	Z 11 CF 13	416 S 21
1.4006	X12 Cr 13	410	S 41000	2302	Z 10 C 13	410 S 21
1.4016	X6 Cr 17	430	S 43000	2320	Z 8 C 17	430 S 15
1.4021	X20 Cr 13	420	S 42000	2303	Z 20 C 13	420 S 37
1.4024	X 15 Cr 13	-410	(S 41000)			420 S 29
1.4028	X30 Cr 13	420 F	S 42020	2304	Z 30 C 13	420 S 45
1.4031	X39 Cr 13			2304	Z 33 C 13	420 S 45
1.4034	X46 Cr 13			2304	Z 40 C 14	(420 S 45)
1.4057	X17 CrNi 16-2	431	S 43100	2321	Z 15 CN 16,02	431 S 29
1.4104	X14 CrMoS 17	430 F	S 43020	2383	Z 13 CF 17	(441 S 29)
1.4112	X90 CrMoV 18	440 B	S 44003			
1.4113	X6 CrMo 17-1	434	S 43400		Z 8 CD 17-01	434 S 17
1.412	X20 CrMo 13				Z 20 CD 14	
1.4122	X39 CrMo 17-1					
1.4301	X5 CrNi 18-10	304	S 30400	2332	Z 6 CN 18,09	304 S 15
1.4303	X4 CrNi 18-12	-305	(S 30500)		Z 8 CN 18-12	305 S 19
1.4305	X8 CrNiS 18-9	303	S 30300	2346	Z 8 CNF 18,09	303 S 31
1.4306	X2 CrNi 19-11	304 L	S 30403	2352	Z 2 CN 18,09	304 S 11
1.4307	X2 CrNi 18-9	304 L		2352	Z 3 CN 18,10	304 S 11
1.431	X10 CrNi 18-8	301	S 30100	2331	Z 12 CN 18,08	301 S 22
1.4311	X2 CrNiN 18-10	304 LN	S 30453	2371	Z 3 CN 18-10 AZ	304 S 61
1.4313	X3 CrNiMo 13-4	CA 6 NM		2384	Z 4 CND 13,04 M	425 C 11
1.4315	X5 CrNiN 19-9	304 N	S 30451		Z 6 CN 19-09 AZ	
1.4318	X2 CrNiN 18-7	301 LN				
1.4319	X 5 CrNi 18 7	302		23 31	Z 10 CN 18-09	302S25
1.4401	X5 CrNiMo 17-12-2	316	S 31600	2347	Z 7 CND 17,12,02	316 S 31
1.4404	X2 CrNiMo 17-12-2	316 L	S 31603	2348	Z 3 CND 18,12,02	316 S 11
1.4406	X 2 CrNiMoN 17 12 2				Z 2 CND 17-12-Az	
1.4418	X4 CrNiMo 16-5-1			2387	Z 6 CND 16,05,01	
1.4427	X4 CrNiMoS 18-11	316 F	S 31620			
1.4429	X2 CrNiMoN 17-13-3	316 LN	S 31653	2375	Z 3 CND 17-12 AZ	316 S 63
1.4432	X2 CrNiMo 17-12-3	316 L		2353	Z 3 CND 17,12,03	316 S 13
1.4435	X2 CrNiMo 18-14-3	316 L	S 31603	2353	Z 3 CND 18,14,03	316 S 11
1.4436	X3 CrNiMo 17-13-3	316	S 31600	2343	Z 7 CND 18,12,03	316 S 31
1.4438	X2 CrNiMo 18-15-4	317 L	S 31703	2367	Z 3 CND 19,15,04	317 S 12
1.4439	X2 CrNiMoN 17-13-5	LMN)				
1.4449	X5 CrNiMo 17-13	317	S 31700			317 S 16

Werkstoff Nr.	DIN / DIN EN	AISI USA	UNS Unified	SS Swedish	AFNOR French	BS British
1.446	X3 CrNiMoN 27-5-2	329	S 32900	2324	Z 5 CND 27.05.AZ	
1.4462	X2 CrNiMoN 22-5-3		S 31803	2377	(Z 5 CNDU 21,08)	
1.4465	X1 CrNiMoN 25-25-2				Z 2 CND 25-22 AZ	
1.4501	X 3 CrNiMoN 25 7	0			Z 3 CND 25-06Az	
1.4509	X2 CrTiNb 18	441			Z 3 CTNb 18	
1.451	X3 CrTi17	439	S 43900		Z 4 CT 17	
1.4511	X8 CrNb 17				Z 4 CNb 17	
1.4512	X2 CrTi 12	409	S 40900		Z 3 CT 12	409 S 19
1.452	X2 CrTi 17					
1.4521	X2 CrMoTi 18-2	444	S 44400			
1.4529	X1 NiCrMoCuN 25-20-7		(S 31254)			
1.4539	X1 NiCrMoCu 25-20-5	(904 L)	N 08904	2562	Z 1 NCDU 25,20	
1.4541	X6 CrNiTi 18-10	321	S 32100	2337	Z 6 CNT 18,10	321 S 31
1.4542	X5 CrNiCuNb 16-4	630	S 17400		Z 67CNU 15,05	
1.4544						
1.4546	X5 CrNiNb 18-10					
1.455	X6 CrNiNb 18-10	347	S 34700	2338	Z 6 CNNb 18,10	347 S 31
1.4561	X1 CrNiMoTi 18-13-2	316 Ti	S 31603			
1.4563	X1 NiCrMoCu 31-27-4		N 08028	2584	Z 2 NCDU 31,27	
1.4565	5-4	S 34565				
1.4568	X7 CrNiAl 17-7	631	S 17700	2388	Z 9 CNA 17-07	
1.4571	X6 CrNiMoTi 17-12-2	316 Ti	S 31635	2350	Z 6 CNDT 17,12	320 S 31
1.4573	X 10 CrNiMoTi 18 12					320S33
1.4580	X 6 CrNiMoNb 17 12 2				Z 6 CNDNb 17-12	
1.4583	X 10 CrNiMoNb 18 12					
1.4589	X5 CrNiMoTi 15-2					
1.4713	X10 CrAlSi 7				Z 8 CA 7	
1.4724	X 10 CrAl 13				(Z 10 C 13)	
1.4742	X 10 CrAl 18				Z 10 CAS 18	
1.4762	X 10 CrAl 24	-446	(S 44600)	-2322	Z 10 CAS 24	
1.4821	X 20 CrNiSi 25 4				Z 20 CNS 25.04	
1.4828	X 15 CrNiSi 20 12	309	(S 30900)		Z 15 CNS 20.12	309 S 24
1.4841	X 15 CrNiSi 25 20	314	S 31400		Z 12 CNS 25.20	314 S 25
1.4842	X 12 CrNi 25 20	310 S		23 61	Z 12 CN 25-20	
1.4845	X 12 CrNi 25 21	310 S	S 31008	2361	Z 12 CN 25.20	310 S 24
1.4864	X 12 NiCrSi 36 16	330	N 08330		Z 12 CNS 35.16	(3076 NA 17)
1.4876	X 10 NiCrAlTi 32 20	B 163			Z 8 NC 32.21	3076 NA 15 H
1.4878	X 12 CrNiTi 18 9	321	S 32100	2337	Z 6 CNT 18.12	321 S 51
1.4939		904L			Z 12 CNDV 12-02	

The most common stainless high-grade steels, standardized in Europe are, classified in:

VA steel = chromium-nickel stainless steels, these are

Werkstoff Material NR. 1.4301, of 1,4305, 1,4306, 1,4541

VA steel = chrome nickel molybdenum steel, these are

Werkstoff Material NR. 1.4401, 1,4404, 1,4435, 1,4436, 1.4571