

Chemical Compositions															
European Designation EN 10088-2 2014		Former BS Standard (Wire Only)	American Designation (ASTM)		TYPICAL CHEMICAL COMPOSITION %										
Number	Name	BS 1554 1990 (Annealed) BS 2056 1991 (Hard) nearest fit	AISI nearest fit	UNS nearest fit	C	Si	Mn	P	S	Cr	Mo	Ni	N	Cu	Other
AUSTENITICS															
-	-	-	205	S 20500	-										
1.4310	X10CrNi18-8	301S26	301	S 30100	0.05 - 0.15	1.00 - 2.00	2.0	0.045	0.015 - 0.030	16.00 - 19.00	0.8	6.0 - 9.5	0.10	-	-
1.4310	X10 Cr Ni 18-8	302S26 (Hard) 302S31 (Annealed)	302	S 30100	0.05 - 0.15	2.0	2.0	0.045	0.015	16.00 - 19.00	-	6.00 - 9.50	0.11	-	-
1.4305	X8CrNiS18-9	303S31	303	-	-										
1.4301	X5 Cr Ni 18-10	304S31 304S15	304	S 30400	0.07	1.0	2.0	0.045	0.015	17.5 - 19.5	-	8.0 - 10.5	0.10	-	-
1.4307	X2 Cr Ni 18-9	304S11	304L	S 30403	0.03	1.0	2.0	0.045	0.015	17.5 - 19.5	-	8.0 - 10.5	0.10	-	-
1.4303	X4 Cr Ni 18-12	-	305	S 30500	0.06	1.0	2.0	0.045	0.015	17.0 - 19.0	-	11.0 - 13.0	0.10	-	-
1.4401	X5 Cr Ni Mo 17-12-2	316S42 316S31 (Annealed)	316	S31600	0.07	1.0	2.0	0.045	0.015	16.5 - 18.5	2.0 - 2.5	Strip: 10.5 - 13.5 Wire: 10.0 - 13.0	Strip: 0.10 Wire: 0.11	-	-
1.4436	X3 Cr Ni Mo17-13-3	316S31 (Annealed) 316S33	316	S31600	0.05	1.0	2.0	0.045	0.015	16.5 - 18.5	2.5 - 3.0	10.5 - 13.0	0.10	-	-
1.4404	X2 Cr Ni Mo 17-12-2	316S14 316S11	316L	S 31603	0.03	1.0	2.0	0.045	0.015	16.5 - 18.5	2.0 - 2.5	10.0 - 13.0	Strip: 0.10 Wire: 0.11	-	-
FERRITICS															
1.4512	X2CrTi12	-	409	S 40900	0.03	1.0	1.0	0.04	0.015	10.5 - 12.5	-	-	-	-	Ti (6x (C+N)) to 0.65
1.4006	X12Cr13	410S21	410S	S 41008	0.08 - 0.15	1.0	1.5	0.04	0.015	11.5 - 13.5	-	0.75	-	-	-
1.4021	X20Cr13	420S29 420S37	420	-	Available by Request										
1.4028	X30Cr13	420S45	420	-	Available by Request										
1.4016	X6 Cr 17	430S17 430S18	430	S 43000	0.08	1.0	1.0	0.04	0.015	16.0 - 18.0	-	-	-	-	-

Mechanical Properties									
European Designation EN 10088-2 2014		Former BS Standard (Wire Only)	American Designation (ASTM)		Maximum tensile strength N/mm <sup>2</sup>				
Number	Name	BS 1554 1990 nearest fit	AISI nearest fit	UNS nearest fit	Wire dia 13.0 - 6.0mm	Wire dia 6.00 - 1.50mm	Wire dia 1.50 - 0.50mm	Wire dia 0.50 - 0.10mm	
AUSTENITICS									
-	-	-	205	S 20500	Available by Request				
1.4310	X10CrNi18-8	-	301	S 30100	Not available as wire. Strip products available.				
1.4310	X10 Cr Ni 18-8	302S26	302	S 30100	750	800	880	900	
1.4305	X8CrNiS18-9	303S31	303	-	Available by Request				
1.4301	X5 Cr Ni 18-10	304S31	304	S 30400	700	770	820	870	
1.4307	X2 Cr Ni 18-9	304S11	304L	S 30403	650	750	775	850	
1.4303	X4 Cr Ni 18-12	-	305	S 30500	Not available as wire. Strip products available.				
1.4401	X5 Cr Ni Mo 17-12-2	316S42	316	S31600	700	770	820	870	
1.4436	X3 Cr Ni Mo17-13-3	-	316	S31600	Not available as wire. Strip products available.				
1.4404	X2 Cr Ni Mo 17-12-2	316S14	316L	S 31603	650	750	775	850	
FERRITICS									
1.4512	X2CrTi12	-	409	S 40900	Not available as wire. Strip products available.				
1.4006	X12Cr13	410S21	410S	S 41008	Not available as wire. Strip products available.				
1.4016	X6 Cr 17	430S17 430S18	430	S 43000	610	620	630	650	

Features and Applications						
STAINLESS STEEL ALLOYS: MATERIAL FEATURES AND APPLICATIONS European Designation EN 10088-2 2014		Former BS Standard (Wire Only)	American Designation (ASTM)		Key Features	Key Markets
Number	Name	BS 1554 1990 nearest fit	AISI nearest fit	UNS nearest fit		
1.4301	X5 Cr Ni 18-10	304S31	304	S 30400	The most common grade of Stainless Steel due to its versatility. It has a high nickel content to increase strength, hardness and ductility. Its popularity can it part be attributed to this alloy's superior formability, welding and deep drawing properties. A high chromium content also provides excellent corrosion resistance in oxidizing environments and moderate protection in some acidic conditions. High hardness and strength can be achieved through cold working. Although a non-magnetic grade, magnetic properties can arise through cold working.	Food, Medical, Automotive, Cryogenic, Springs & Pressings, Pharmaceutical
1.4307	X2 Cr Ni 18-9	304S11	304L	S 30403	The low Carbon version of 304 (1.4301) is ideal for more corrosive environments with oxidation resistance to a maximum temperature of 899°C (1650°F) without appreciable scaling. It offers greater resistance to intergranular corrosion in welds and moderate pitting corrosion resistance. It has good welding characteristics, though other grades are better suited for applications specifying stress relief.	Medical, Automotive, Springs & Pressings
1.4404	X2 Cr Ni Mo 17-12-2	316S14	316L	S 31603	The Low Carbon version of 316 (1.4401), offers better corrosion resistance and is better suited for uses at sensitization temperatures, such as welding, as intergranular corrosion resistance is increased. Slightly more corrosion resistant than 316 (1.4401). More heavily alloyed, this grade has excellent corrosion resistance in Food, Beverage and Agricultural applications.	Chemical Processing, Petrochemical, Automotive, Marine, Food, Agricultural
1.4432	X2 Cr Ni Mo 17-12-3	-	316L	S 31603	The Low Carbon version of 316 (1.4401), offers better corrosion resistance and is better suited for uses at sensitization temperatures, such as welding, as intergranular corrosion resistance is increased. Slightly more corrosion resistant than 316 (1.4401). More heavily alloyed, this grade has excellent corrosion resistance in Food, Beverage and Agricultural applications.	Chemical Processing, Petrochemical, Automotive, Marine, Food, Agricultural
1.4006	X12Cr13	410S21	410S	S 41008	Ferritic Alloy 410s (1.4006) is a non-heat treatable, low carbon version of Stainless Steel grade 410. It offers moderate strength and corrosion resistance. When compared to austenitic grades, this alloy has a higher heat conductivity and a low heat expansion coefficient. It has good formability and is ideally suited to deep drawing applications.	Petrochemical Industry, Mining