

A welder wearing a blue denim jacket, a blue welding mask, and yellow gloves with the ESAB logo is working on a large, circular stainless steel component. The welder is using a welding torch and a rod. The component has several bolts around its edge. The background is a workshop setting with various tools and equipment.

Stainless Steel Welding

WELDING CONSUMABLES FOR JOINING AND CLADDING
STAINLESS STEELS AND NICKEL-BASE ALLOYS

REV.1/07 2011

Overview stainless steel consumables

Covered electrodes for MMA welding

Classification	Euronorm	AWS/SFA	Typical chemical composition (%)								FN		
			C	Si	Mn	Cr	Ni	Mo	N	others			
OK 61.20	EN 1600	E 19 9 L R 1 1	A5.4	E308L-16	0.026	0.7	0.7	19.2	9.6		0.10		5
OK 61.25	EN 1600	E 19 9 H B 2 2	A5.4	E308H-15	0.06	0.03	1.7	18.8	9.8		0.05		4
OK 61.30	EN 1600	E 19 9 L R 1 2	A5.4	E308L-17	0.03	0.9	0.7	19.3	10.0		0.09		4
OK 61.35	EN 1600	E 19 9 L B 2 2	A5.4	E308L-15	0.04	0.3	1.6	19.5	9.8		0.06		6
OK 61.35 Cryo	EN 1600	E 19 9 L B 2 2	A5.4	E308L-15	0.04	0.3	1.6	18.7	10.5		0.06		3
OK 61.50	EN 1600	E 19 9 H R 1 2	A5.4	E308H-17	0.05	0.7	0.7	19.8	10.0		0.10		4
OK 61.80	EN 1600	E 19 9 Nb R 1 2	A5.4	E347-17	0.03	0.7	0.6	19.5	10.0		0.09	Nb: 0.29	7
OK 61.81	EN 1600	E 19 9 Nb R 3 2	A5.4	E347-16	0.06	0.7	1.7	20.2	9.7		0.08	Nb: 0.72	5
OK 61.85	EN 1600	E 19 9 Nb B 2 2	A5.4	E347-15	0.04	0.4	1.7	19.5	10.2		0.07	Nb: 0.61	5
OK 61.86	EN 1600	E 19 9 Nb R 1 2	A5.4	E347-17	<0.03	0.8	0.7	19.0	10.4		0.09	Nb: 0.50	4
OK 62.53					0.07	1.6	0.6	23.1	10.4		0.16		8
OK 63.20	EN 1600	E 19 12 3 L R 1 1	A5.4	E316L-16	0.02	0.7	0.7	18.4	11.5	2.8	0.11		4
OK 63.30	EN 1600	E 19 12 3 L R 1 2	A5.4	E316L-17	0.02	0.8	0.6	18.1	11.0	2.7	0.10		6
OK 63.34	EN 1600	E 19 12 3 L R 1 1	A5.4	E316L-16	0.02	0.8	0.8	18.7	11.8	2.8	0.13		6
OK 63.35	EN 1600	E 19 12 3 L B 2 2	A5.4	E316L-15	0.04	0.4	1.6	18.3	12.6	2.7	0.06		4
OK 63.41	EN 1600	E 19 12 3 L R 5 3	A5.4	E316L-26	0.03	0.8	0.7	18.2	12.5	2.8	0.09		4
OK 63.80	EN 1600	E 19 12 3 Nb R 3 2	A5.4	E318-17	0.02	0.8	0.6	18.2	11.5	2.9	0.08	Nb: 0.31	7
OK 63.85	EN 1600	E 19 12 3 Nb B 4 2	A5.4	E318-15	0.04	0.5	1.6	17.9	13.0	2.7	0.06	Nb: 0.55	4
OK 64.30	EN 1600	E 19 13 4 N L R 3 2	A5.4	E317L-17	0.02	0.7	0.7	18.4	13.1	3.6	0.08		8
OK 67.13	EN 1600	E 25 20 R 1 2	A5.4	E310-16	0.12	0.5	1.9	25.6	20.5				0
OK 67.15	EN 1600	E 25 20 B 2 2	A5.4	E310-15	0.10	0.4	2.0	25.7	20.0				0
OK 67.20	EN 1600	E 23 12 2 L R 1 1	A5.4	(E309LMo-16)	0.02	1.1	0.8	22.9	13.1	2.9	0.13		15
OK 67.43	EN 1600	E 18 8 Mn B 1 2	A5.4	(E307-16)	0.08	0.8	5.4	18.4	9.1				0
OK 67.45	EN 1600	E 18 8 Mn B 4 2	A5.4	(E307-15)	0.09	0.3	6.3	18.8	9.1				<5
OK 67.50	EN 1600	E 22 9 3 N L R 3 2	A5.4	E2209-17	0.03	0.8	0.8	22.6	9.0	3.0	0.16		45
OK 67.51	EN 1600	E 22 9 3 N L R 5 3	A5.4	E2209-26	0.03	0.8	0.7	22.7	8.9	3.0	0.16		45
OK 67.52	EN 1600	E 18 8 Mn B 8 3	A5.4	(E307-25)	0.09	0.9	7.0	17.7	8.5				45
OK 67.53	EN 1600	E 22 9 3 N L R 1 2	A5.4	(E2209-16)	0.03	1.0	0.7	23.7	9.3	3.4	0.16		45
OK 67.55	EN 1600	E 22 9 3 N L B 2 2	A5.4	E2209-15	0.03	0.7	1.0	23.2	9.1	3.2	0.15		45
OK 67.56	EN 1600	E Z 23 7 N L R			0.03	0.9	0.7	23.7	6.9	0.4	0.15		45
OK 67.60	EN 1600	E 23 12 L R 3 2	A5.4	E309L-17	0.03	0.8	0.9	23.7	12.4		0.09		15
OK 67.62	EN 1600	E Z 23 12 L R 7 3	A5.4	E309-26	0.04	0.8	0.6	23.7	12.7		0.09		15
OK 67.70	EN 1600	E 23 12 2 L R 3 2	A5.4	E309L-17	0.02	0.8	0.6	22.5	13.4	2.8	0.08		18
OK 67.71	EN 1600	E 23 12 2 L R 5 3	A5.4	E309LMo-26	0.04	0.9	0.9	22.9	13.3	2.6	0.08		15
OK 67.75	EN 1600	E 23 12 L B 4 2	A5.4	E309L-15	0.04	0.3	0.2	23.5	12.9				15
OK 68.15	EN 1600	E 13 B 4 2	A5.4	E410-15	0.04	0.4	0.3	12.9					
OK 68.17	EN 1600	E 13 4 R 3 2	A5.4	E410NiMo-16	0.02	0.4	0.6	12.0	4.6	0.6			
OK 68.25	EN 1600	E 13 4 B 4 2	A5.4	E410NiMo-15	0.04	0.4	0.6	12.2	4.5	0.6			
OK 68.37	NF A 81-383	E Z 17.4.1.B 20			0.05	0.16	1.1	16.0	5.0	0.43			
OK 68.53	EN 1600	E 25 9 4 N L R 3 2	A5.4	E2594-16	0.03	0.6	0.7	25.2	10.3	4.0	0.25		42
OK 68.55	EN 1600	E 25 9 4 N L B 4 2	A5.4	E2594-15	0.04	0.6	0.9	25.2	10.4	4.3	0.24		45

Classification			Typical chemical composition (%)								
Euronorm	AWS/SFA	C	Si	Mn	Cr	Ni	Mo	N	others	FN	
OK 68.81	EN 1600 E 29 9 R 3 2	A5.4 E312-17	0.13	0.7	0.9	28.9	10.2			50	
OK 68.82	EN 1600 E 29 9 R 3 2	A5.4 (E312-17)	0.13	1.1	0.6	29.1	9.9			50	
OK 69.25	EN 1600 E 20 16 3 Mn N L B 4 2	A5.4 E316LMn-15	0.04	0.5	6.5	19.0	16.0	3.0	0.15	<0.5	
OK 69.33	EN 1600 E20 25 5 Cu N L R 3 2	A5.4 E385-16	0.03	0.5	1.0	20.5	25.5	4.8	0.08	Cu: 1.7	
OK 310Mo-L	EN 1600 E 25 22 2 N L R 1 2	A5.4 (E310Mo-16)	0.038	0.4	4.4	24.2	21.7	2.4	0.14	0	
OK 92.05	EN ISO 14 172 E Ni 2061 (NITi3)	A5.11 ENi-1	0.04	0.7	0.4		96.0			Ti: 1.5, Al: 0.10, Fe: 0.4	
OK 92.15	EN ISO 14 172 E Ni 6133 (NiCr16Fe12NbMo)	A5.11 ENiCrFe-2	0.03	0.45	2.7	16.1	69.0	1.9		Nb: 1.9, Fe: 7.7	
OK 92.18	EN ISO 1071 E C Ni-CI 3	A5.15 ENi-CI	1.0	0.6	0.8		94.0			Fe: 4	
OK 92.26	EN ISO 14 172 E Ni 6182 (NiCr15Fe6Mn)	A5.11 ENiCrFe-3	0.03	0.5	6.6	15.8	66.9			Nb: 1.7, Fe: 8.8	
OK 92.35	EN 14 700 E Z Ni2	A5.11 (ENiCrMo-5)	0.05	0.5	0.9	15.5	57.5	16.4		W: 3.5, Fe: 5.5	
OK 92.45	EN ISO 14 172 E Ni 6625 (NiCr22Mo9Nb)	A5.11 ENiCrMo-3	0.03	0.4	0.2	21.7	63.0	9.3		Nb: 3.3, Fe: 2.0	
OK 92.55	EN ISO 14 172 E Ni 6620 (NiCr14Mo7Fe)	A5.11 ENiCrMo-6	0.05	0.3	3.0	12.9	69.4	6.2		Nb: 1.3, W: 1.6, Fe: 5.0	
OK 92.58	EN ISO 1071 E C NiFe-CI-A 1	A5.15 ENiFe-CI-A	1.5	0.7	0.8		51.0			Al: 1.4, Fe: 46	
OK 92.59	EN ISO 14 172 E Ni 6059 (NiCr23Mo16)	A5.11 ENiCrMo-13	0.01	0.2	0.2	22.0	61.0	15.2		W: 0.25, Fe: 0.8	
OK 92.60	EN ISO 1071 E C NiFe-1 3	A5.15 ENiFe-CI	0.9	0.5	0.6	53.0				Fe: 44, Cu: 0.9, Al: 0.4	
OK 92.78	EN ISO 1071 E C NiCu 1		0.35		0.9		65.0			Cu: 32, Fe: 2.2	
OK 92.86	EN ISO 14 172 E Ni 4060 (NiCu30Mn3Ti)	A5.11 ENiCu7	0.01	0.3	2.1		66.0			Cu: 29, Fe: 1.6, Ti: 0.2	
OK 94.25	DIN 1733 EL-CuSn7				0.35					Cu: 93, Sn: 6.5	

Solid wires for MIG/MAG welding

Classification			Typical chemical composition (%)								
Euronorm	AWS/SFA	C	Si	Mn	Cr	Ni	Mo	N	others	FN	
OK Autrod 308H	EN ISO 14343-A G 19 9 H	A5.9: ER308H	0.04	0.4	1.8	19.5	9.0				
OK Autrod 308L	EN ISO 14343-A G 19 9 L	A5.9: ER308L	0.02	0.4	1.6	20.0	10.0	0.05	<0.08	5-10	
OK Autrod 308LSi	EN ISO 14343-A G 19 9 LSi	A5.9: ER308LSi	0.01	0.8	1.8	20.0	10.0	0.1	<0.08	8	
OK Autrod 309L	EN ISO 14343-A G 23 12 L	A5.9: ER309L	0.03	0.4	1.5	23.5	13.0	0.1	<0.11	9	
OK Autrod 309Si	EN ISO 14343-A G 22 12 H	A5.9: ER309Si	0.06	0.8	1.8	24.0	13.0				
OK Autrod 309LSi	EN ISO 14343-A G 23 12 LSi	A5.9: ER309LSi	0.02	0.8	1.8	24.0	13.0	0.1	<0.09	8	
OK Autrod 309MoL	EN ISO 14343-A G 23 12 L	A5.9: (ER309MoL)	0.01	0.3	1.8	21.5	14.5	2.6		8	
OK Autrod 310	EN ISO 14343-A G 25 20	A5.9: ER310	0.10	0.4	1.7	25.0	20.0				
OK Autrod 312	EN ISO 14343-A G 29 9	A5.9: ER312	0.10	0.5	1.7	29.0	8.5				
OK Autrod 316L	EN ISO 14343-A G 19 12 3 L	A5.9: ER316L	0.02	0.4	1.8	18.5	12.0	2.5	<0.08	8	
OK Autrod316LSi	EN ISO 14343-A G 19 12 3 LSi	A5.9: ER316LSi	0.02	0.8	1.8	18.5	12.0	2.5	<0.08	7	
OK Autrod 317L	EN ISO 14343-A G 18 15 3 L	A5.9: ER317L	<0.03	0.5	2.0	19.5	14.0	3.5			
OK Autrod 318Si	EN ISO 14343-A G 19 12 3 Nb	A5.9: ER318	0.08	0.8	1.5	19.0	12.0	2.7	<0.08	Nb: 0.7	
OK Autrod 347Si	EN ISO 14343-A G 19 9 Nb	A5.9: ER347	0.04	0.7	1.7	19.0	9.8	0.1	<0.08	Nb: 0.6	
OK Autrod 385	EN ISO 14343-A G 20 25 5 Cu L	A5.9: ER385	0.01	0.3	1.6	20.0	25.0	4.7		Cu: 1.4	
OK Autrod 409Nb		A5.9: ER409Nb	<0.08	0.8	0.6	12.0	0.5	0.4		Nb: >10xC	
OK Autrod 410NiMo	EN ISO 14343-A G 13 4		0.015	0.4	0.7	12.0	4.2	0.5	<0.3		
OK Autrod 430LNb	EN ISO 14343-A G Z 17 L Nb		0.015	0.5	0.5	18.5	0.2	0.06	0.01	Nb>12xC	
OK Autrod 430LNbTi	EN ISO 14343-A G Z 18LNbTi		<0.025	0.7	0.5	18.5	<0.3	<0.3		Nb: Min 0.05+7x(C+N)	
OK Autrod 430Ti	EN ISO 14343-A G Z 17 Ti		0.09	0.9	0.4	18.0	0.3	0.1		Ti: 0.3	
OK Autrod 16.95	EN ISO 14343-A G 18 8 Mn	ER307LSi	0.10	1.0	6.5	18.5	8.5	0.1	<0.08		
OK Autrod 2209	EN ISO 14343-A G 22 9 3 N L	A5.9: ER2209	0.01	0.6	1.6	23.0	9.0	3.0	0.1	45	
OK Autrod 2307	EN ISO 14343-A G 23 7 NL		0.02	0.4	0.5	23	7.0	<0.5	0.14	40	
OK Autrod 2509	EN ISO 14343-A G 25 9 4 N L	A5.9: ER2594	0.01	0.35	0.4	25.0	9.8	4.0	0.25	40	
OK Autrod 19.81	EN ISO 18274 G Ni6059 (NiCr23Mo16)	A5.14: ERNiCrMo-13	0.002	0.03	0.15	22.7	bal	15.4		Al: 0.15	
OK Autrod 19.82	EN ISO 18274 G Ni6625 (NiCr22Mo9Nb)	A5.14: ER NiCrMo-3	0.01	0.1	0.1	22.0	bal	9.0		Nb+Ta: 3.65, Fe<2	
OK Autrod 19.83	EN ISO 18274 S Ni 6276 (NiCr15Mo16Fe6W4)	A5.14: ERNiCrMo-4	<0.02	0.06	0.8	15.5	>50	16		W: 4.0, Co: <2.5, Fe: 6.0	
OK Autrod 19.85	EN ISO 18274 G Ni6082 (NiCr20Mn3Nb)	A5.14: ERNiCr-3	0.02	0.1	3.0	20.0	bal			Nb+Ta: 2.5, Ti<3	
OK Autrod 19.92	EN ISO 18274 G Ni 2061 (NITi3)	A5.14 ERNi-1	0.02	0.3	0.4		93.0			Ti: 3	
OK Autrod 19.93	EN ISO 18274 G Ni 4060 (NiCu30Mn3Ti)	A5.14 ERNiCu-7	0.03	0.3	3.0		64.0			Cu: 28, Ti: 2	

Overview stainless steel consumables

Wires for TIG welding

OK Tigrod	Classification			Typical chemical composition (%)									
	Euronorm		AWS/SFA	C	Si	Mn	Cr	Ni	Mo	N	others	FN	
308H	EN ISO 14343-A	W 19 9 H	A5.9: ER308H	0.05	0.4	1.8	20	9.3			Tot<0.5		
308L	EN ISO 14343-A	W 19 9 L	A5.9: ER308L	0.01	0.4	1.6	20.0	10.0	0.1	<0.08	Tot<0.5	9	
308LSi	EN ISO 14343-A	W 19 9 LSi	A5.9: ER308LSi	0.01	0.8	1.8	20.0	10.0	0.1	<0.08	Tot<0.5	8	
309L	EN ISO 14343-A	W 23 12 L	A5.9: ER309L	0.02	0.4	1.6	24.0	13.0	0.1	<0.11	Tot<0.5	9	
309LSi	EN ISO 14343-A	W 23 12 Lsi	A5.9: ER309LSi	0.02	0.8	1.8	23.0	13.0	0.1	<0.09	Tot<0.5	9	
309MoL	EN ISO 14343-A	W 23 12 2 L	A5.9: (ER309MoL)	0.01	0.3	1.6	22.0	14.5	2.7		Tot<0.5	8	
310	EN ISO 14343-A	W 25 20	A5.9: ER310	0.10	0.4	1.7	25.0	20.0			Tot<0.5		
312	EN ISO 14343-A	W 29 9	A5.9: ER312	0.10	0.5	1.7	29.0	9.0			Tot<0.5		
316H	EN ISO 14343-A	W 19 12 3 H	A5.9: ER316H	0.06	0.5	1.8	19.0	12.0	2.3		Cu: <0.3		
316L	EN ISO 14343-A	S 19 12 3 L	A5.9: ER316L	0.01	0.4	1.6	18.5	12.0	2.5	<0.08	Tot<0.5	8	
316LSi	EN ISO 14343-A	S 19 12 3 LSi	A5.9: ER316LSi	0.01	0.8	1.7	18.0	0.3	0.1	<0.08	Tot<0.5	7	
317L	EN ISO 14343-A	W 18 15 3 L	A5.9: ER317L	<0.03	0.5	1.8	19.5	14.0	3.5				
318Si	EN ISO 14343-A	W 19 12 3 NbSi		0.04	0.8	1.5	19.0	12.5	2.5	<0.08	Nb=0.5	7	
347	EN ISO 14343-A	W 19 9 Nb	A5.9: ER347	<0.08	0.5	1.4	20.0	10.0	<0.3	<0.08	Nb=<1.0, Cu: <0.3		
347Si	EN ISO 14343-A	S 19 9 Nb	A5.9: ER347	0.04	0.8	1.5	20.0	10.0	0.1	<0.08	Nb=0.7	7	
385	EN ISO 14343-A	W 20 25 5 Cu L	A5.9: ER385	0.01	0.4	1.8	20.0	25.0	4.5		Cu=1.5	0	
410NiMo	EN ISO 14343-A	W 13 4		0.01	0.3	0.7	12.3	4.5	0.5	<0.3	Tot<0.5		
430Ti	EN ISO 14343-A	W Z 17 Ti		0.09	0.7	0.4	17.5	<0.4	<0.3		Ti=0.5		
16.95	EN ISO 14343-A	W 18 8 Mn	(307LSi)	0.08	0.7	6.5	18.5	8.5	0.1	<0.08	Tot<0.5		
2209	EN ISO 14343-A	W 22 9 3 N L	A5.9: ER2209	0.01	0.5	1.6	22.5	8.5	3.2	0.15	Tot<0.5	45	
2307	EN ISO 14343-A	W 23 7 NL		0.02	0.4	0.5	23	7.0	<0.5	0.4			
2509	EN ISO 14343-A	W 25 9 4 N L	A5.9: ER2594	<0.02	0.35	0.4	25.0	9.8	4.0	0.25		40	
19.81	EN ISO 18274	S Ni6059 (NiCr23Mo16)	A5.14: ERNiCrMo-13	0.002	0.03	0.15	22.7	bal	15.4		Al=0.15		
19.82	EN ISO 18274	S Ni6625 (NiCr22Mo9Nb)	A5.14: ER NiCrMo-3	0.02	0.1	0.1	22.0	bal	9.0		Nb+Ta=3.65, Fe<2		
19.85	EN ISO 18274	S Ni6082 (NiCr20Mn3Nb)	A5.14: ERNiCr-3	<0.1	<0.5	3.0	20.0	>67			Nb+Ta=2.5, Ti<3		
19.92	EN ISO 18274	S Ni 2061 (NiTi3)	A5.14: ERNi-1	0.02	0.1	0.4		93.0			Ti=3		
19.93	EN ISO 18274	S Ni 4060 (NiCu30Mn3Ti)	A5.14: ERNiCu-7	0.03	0.3	3.0		64.0			Cu=28, Ti=2, Fe=2		

Tubular cored wires for MIG/MAG welding

	Classification			Typical chemical composition (%)									
	Euronorm		AWS/SFA	C	Si	Mn	Cr	Ni	Mo	N	others		
Shield-Bright 308L X-tra	EN ISO 17633-A	T 19 9 L R C 3 / T 19 9 L R M 3	A5.22: E308LT0-1 / E308LT-4	0.02	0.9	1.4	19.6	9.9	0.1				
Shield-Bright 309L X-tra	EN ISO 17633-A	T 23 12 L R C 3 / T 23 12 L R M 3	A5.22: E309LT0-1 / E309LT0-4	0.03	0.8	1.4	24.5	12.5	0.1				
Shield-Bright 309L Mo X-tra	EN ISO 17633-A	T 23 12 2 L R C 3 / T 23 12 2 L R M 3	A5.22: E309LMoT0-1 / E309LMoT0-4	0.03	0.8	1.2	23.5	13.5	2.5				
Shield-Bright 316L X-tra	EN ISO 17633-A	T 19 12 3 L R C 3 / T 19 12 3 L R M 3	A5.22: E316LT0-1 / E316LT0-4	0.03	0.6	1.3	18.5	12.0	2.7				
Shield-Bright 347 X-tra	EN ISO 17633-A	T 19 9 Nb R M 3	A5.22: E347T0-1 / E347T0-4	0.04	0.5	1.6	19.0	9.6	0.1		Nb:0.8		
Shield-Bright 308L	EN ISO 17633-A	T 19 9 L P M 2 / T 19 9 L P C 2	A5.22: E308LT1-1 / E308LT1-4	0.03	0.9	1.2	19.0	10.0	0.1				
Shield-Bright 309L	EN ISO 17633-A	T 23 12 L P C 2 / T 23 12 L P M 2	A5.22: E309LT1-1 / E309LT1-4	0.03	0.9	1.3	24.0	12.5	0.1				
Shield-Bright 309L Mo			A5.22: E309LMoT1-1 / E309LMoT1-4	0.03	0.8	1.2	23.5	13.5	2.5				
Shield-Bright 316L	EN ISO 17633-A	T 19 12 3 L P M 2 / T 19 12 3 L P C 2	A5.22: E316LT1-1 / E316LT1-4	0.03	0.6	1.3	18.5	12.0	2.7				
Shield-Bright 347			A5.22: E347LT1-1 / E347LT1-4	0.03	0.9	1.2	19.5	10.0	0.1				
Shield-Bright 2307	EN ISO 17633-A	T 23 7 N L P M 2 2		0.03	0.7	0.8	23.7	8.4			0.12		
OK Tubrod 14.27	EN ISO 17633-A	T 22 9 3 N L P M 2 / T 22 9 3 N L P C 2	A5.22: E2209LT1-4 / E2209LT1-1	0.03	0.9	1.0	22.6	9.0	3.0	0.15			
OK Tubrod 14.28				0.03	0.6	0.9	25.2	9.2	3.9	0.25			
OK Tubrod 14.37	EN ISO 17633-A	T 22 9 3 N L R C 3 / T 22 9 3 N L R M 3	A5.22: E2209T0-1 / E2209T0-4	0.02	0.6	0.8	21.7	8.6	2.8	0.13			
OK Tubrod 15.30	EN ISO 17633-A	T 19 9 L M M 2		0.02	0.7	1.3	18.8	9.8	0.1				
OK Tubrod 15.31	EN ISO 17633-A	T 19 12 3 L M M 2		0.02	0.7	1.2	17.6	11.6	2.7				
OK Tubrod 15.34	EN ISO 17633-A	T 18 8 Mn M M 2		0.10	0.7	6.7	18.5	8.7	0.1				

Wires for Submerged Arc Welding

Classification				Typical chemical composition (%)									
Euronorm				AWS/SFA	C	Si	Mn	Cr	Ni	Mo	N	others	FN
OK Autrod 308L	EN ISO 14343-A	S 19 9 L		A5.9: ER308L	0.02	0.4	1.8	20.0	10.0	0.2	0.05		9
OK Autrod 308H	EN ISO 14343-A	S 19 9 H		A5.9: ER308H	0.05	0.5	1.7	21.0	10.0	0.2	0.04		
OK Autrod 347	EN ISO 14343-A	S 19 9 Nb		A5.9: ER347	0.04	0.4	1.7	19.3	10.0	0.1	0.08	Nb: 0.8	7
OK Autrod 316L	EN ISO 14343-A	S 19 12 3 L		A5.9: ER316L	0.01	0.4	1.7	18.5	12.2	2.7	0.05		8
OK Autrod 317L	EN ISO 14343-A	S 18 15 3 L		A5.9: ER317L	0.01	0.4	1.7	19.0	13.5	3.6	0.05		8
OK Autrod 316H	EN ISO 14343-A	S 19 12 3 H		A5.9: ER316H	0.05	0.4	1.7	19.3	12.5	2.6	0.04		
OK Autrod 16.38	EN ISO 14343-A	S 20 16 3 Mn L		A5.9: -	0.01	0.4	6.9	19.9	16.5	3.0	0.18		
OK Autrod 318	EN ISO 14343-A	S 19 12 3 Nb		A5.9: ER318	0.04	0.4	1.7	18.5	11.5	2.5	0.08	Nb: 0.8	9
OK Autrod 309L	EN ISO 14343-A	S 23 12 L		A5.9: ER309L	0.01	0.4	1.7	23.4	13.4	0.1	0.05		9
OK Autrod 309MoL	EN ISO 14343-A	S 23 12 L		A5.9: (ER309MoL)	0.01	0.4	1.4	21.4	15.0	2.7	0.05		8
OK Autrod 385	EN ISO 14343-A	S 20 25 5 Cu L		A5.9: ER385	0.01	0.4	1.7	20.0	25.0	4.4	0.04	Cu: 1.5	
OK Autrod 310	EN ISO 14343-A	S 25 20		A5.9: ER310	0.11	0.4	1.7	25.9	20.8	0.1	0.04		
OK Autrod 2209	EN ISO 14343-A	S 22 9 3 N L		A5.9: ER2209	0.01	0.5	1.6	23.0	8.6	3.2	0.16		45
OK Autrod 310MoL	EN ISO 14343-A	S 25 22 2 N L		A5.9: (ER310MoL)	0.01	0.1	4.5	25.0	21.9	2.0	0.14		
OK Autrod 2307	EN ISO 14343-A	S 23 7 N L		A5.9: -	0.01	0.5	1.3	23.0	7.0	0.3	0.15	Cu: 0.2	50
OK Autrod 2509	EN ISO 14343-A	S 25 9 4 N L		A5.9: -	0.01	0.4	0.4	25.0	9.5	3.9	0.25		40
OK Autrod 16.97	EN ISO 14343-A	S 18 8 Mn		A5.9: (ER307)	0.07	0.5	6.5	18.5	8.2	0.1			
OK Autrod 19.81	EN ISO 18274	S Ni6059 (NiCr23Mo16)		A5.14: ERNiCrMo-13	0.01	0.1	0.2	23.0	Bal.	16.0		Al: 0.3, Fe: 1.0	
OK Autrod 19.82	EN ISO 18274	S Ni6625 (NiCr22Mo9Nb)		A5.14: ER NiCrMo-3	0.05	0.2	0.2	22.0	Bal.	9.0		Nb: 3.5, Fe≤1.0	
OK Autrod 19.83	EN ISO 18274	S Ni 6276 (NiCr15Mo16Fe6W4)		A5.14: ER NiCrMo-4	0.01	0.05	0.8	15.5	Bal.	15.5		W: 4.0, Co: 2.0, Fe≤5.0	
OK Autrod 19.85	EN ISO 18274	S Ni6082 (NiCr20Mn3Nb)		A5.14: ERNiCr-3	0.05	0.3	3.0	20.0	Bal.	0.1		Nb: 2.6, Fe≤1.0	

Strips for Submerged Arc Strip Cladding and Electroslag Strip Cladding

Classification				Typical chemical composition (%)									
Euronorm				AWS/SFA	C	Si	Mn	Cr	Ni	Mo	N	others	FN
OK Band 308L	EN ISO 14343-A	B 19 9 L		A5.9: EQ308L	0.015	0.3	1.8	20.0	10.5		0.06		12
OK Band 347	EN ISO 14343-A	B 19 9 Nb		A5.9: EQ347	0.02	0.4	1.8	19.5	10.0		0.06	Nb: 0.5	11
OK Band 316L	EN ISO 14343-A	B 23 12 L		A5.9: EQ316L	0.02	0.4	1.8	18.5	13.0	2.9	0.06		8
OK Band 309L	EN ISO 14343-A	B 23 12 L		A5.9: EQ309L	0.015	0.4	1.8	23.5	13.5		0.06		13
OK Band 309LNb	EN ISO 14343-A	B 23 12 L Nb			0.02	0.3	2.1	24.0	12.5		0.06	Nb: 0.8	22
OK Band 309L ESW	EN ISO 14343-A	B 21 11 L			0.015	0.2	1.8	21.0	11.5		0.06		11
OK Band 309LNb ESW	EN ISO 14343-A	B 21 11 L Nb			0.015	0.2	1.8	21.0	11.0		0.06	Nb: 0.6	15
OK Band 309LMo ESW	EN ISO 14343-A	(B 23 13 3 L)			0.015	0.2	1.8	20.5	13.5	2.9	0.06		13
OK Band 430	EN ISO 14343-A	B 17			0.04	0.4	0.7	17.0			0.06		
OK Band NiCr3	EN ISO 18274	S Ni6082 (NiCr20Mn3Nb)		A5.14: ERNiCr-3	< 0.1	0.2	3.0	20.0	≥67.0		0.05	Nb: 2.5, Fe≤3.0	
OK Band NiCrMo3	EN ISO 18274	S Ni6625 (NiCr22Mo9Nb)		A5.14: ER NiCrMo-3	< 0.1	0.1	0.3	22.0	≥58.0	9.0	0.05	Nb: 4.0, Fe≤2.0	

Consumable selection by parent material

EN Standard	Designation	No.	AISI (UNS)	Covered electrodes for MMA welding	Solid wires for MIG/MAG welding
FERRITIC					
EN 10088-1	X2CrNi12	1.4003	S41050	OK 61.20, OK 61.30, OK 61.35	OK Autrod 308L, OK Autrod 308LSi
EN 10088-1	X6Cr13	1.4000	403	OK 61.20, OK 61.30, OK 61.35	OK Autrod 308L, OK Autrod 308LSi
EN 10088-1	X6Cr17	1.4016	430	OK 61.20, OK 61.30, OK 61.35	OK Autrod 308L, 308LSi, 430Ti, 430LNb, 430
EN 10088-1	X2CrMoTi18-2	1.4521	S44400	OK 61.20, OK 61.30, OK 61.35	OK Autrod 308L, OK Autrod 308LSi
EN 10088-1	-	1.4762	446	OK 67.15	OK Autrod 310
AUSTENITIC					
EN 10088-1	X2CrNi18-9	1.4307	304L	OK 61.20, OK 61.30, OK 61.34, OK 61.35, OK 61.35 Cryo	OK Autrod 308L, OK Autrod 308LSi
EN 10088-1	X10CrNi18-8	1.4310	301	OK 61.20, OK 61.30, OK 61.34, OK 61.35, OK 61.35 Cryo	OK Autrod 308L, OK Autrod 308LSi
EN 10088-1	X2CrNiN18-10	1.4311	304LN	OK 61.20, OK 61.30, OK 61.34, OK 61.35, OK 61.35 Cryo	OK Autrod 308L, OK Autrod 308LSi
EN 10088-1	X5CrNi18-10	1.4301	304	OK 61.20, OK 61.30, OK 61.34, OK 61.35, OK 61.35 Cryo	OK Autrod 308L, OK Autrod 308LSi
EN 10088-1	X8CrNiS18-9	1.4305	303	OK 68.81	OK Autrod 312
EN 10088-1	X6CrNiTi18-10	1.4541	321	OK 61.80, OK 61.81, OK 61.85, OK 61.86	OK Autrod 347Si
EN 10088-1	X6CrNiNb18-10	1.4550	347	OK 61.80, OK 61.81, OK 61.85, OK 61.86	OK Autrod 347Si
EN 10088-1	X3CrNiMo17-13-3	1.4436	316	OK 63.20, OK 63.30, OK 63.34, OK 63.35, OK 63.41	OK Autrod 316L, OK Autrod 316LSi
EN 10088-1	X5CrNiMo17-12-2	1.4401	316	OK 63.20, OK 63.30, OK 63.34, OK 63.35, OK 63.41	OK Autrod 316L, OK Autrod 316LSi
EN 10088-1	X2CrNiMo17-12-2	1.4404	316L	OK 63.20, OK 63.30, OK 63.34, OK 63.35, OK 63.41	OK Autrod 316L, OK Autrod 316LSi
EN 10088-1	X2CrNiMo18-14-3	1.4435	316L	OK 63.20, OK 63.30, OK 63.34, OK 63.35, OK 63.41	OK Autrod 316L, OK Autrod 316LSi
EN 10088-1	X2CrNiMoN17-13-3	1.4429	S31653	OK 63.20, OK 63.30, OK 63.34, OK 63.35, OK 63.41	OK Autrod 316L, OK Autrod 316LSi
EN 10088-1	X6CrNiMoTi17-12-2	1.4571	316Ti	OK 63.80, OK 63.85	OK Autrod 318Si
EN 10088-1	X6CrNiMoNb17-12-2	1.4580	316Nb	OK 63.80, OK 63.85	OK Autrod 318Si
EN 10088-1	X12CrMnNiN17-7-5	1.4372	201	OK 67.43, OK 67.45, OK 67.52	OK Autrod 16.95
EN 10088-1	X2CrNiMo18-14-3	1.4435	S31603	OK 69.25	
EN 10088-1	X1CrNiMoN25-22-2	1.4466	310MoLN	OK 310Mo-L	OK Autrod 310
EN 10088-1	X1NiCrMoCu25-20-5	1.4539	N08904	OK 69.33	OK Autrod 385, OK Autrod 19.82
EN 10088-1	X2CrNiMo18-15-4	1.4438	S31703	OK 64.30	OK Autrod 385, OK Autrod 19.82
EN 10088-1	X1CrNiMoCuN20-18-7	1.4547	S31254	OK 92.45	OK Autrod 19.82
EN 10088-1	X1NiCrMoCu31-27-4	1.4563	N08028	OK 92.45	OK Autrod 19.81
EN 10088-1	-	1.4562	S32654	OK 92.59	OK Autrod 19.81
HEAT RESISTANT AUSTENITIC					
EN 10095	X15CrNi23-13	1.4833	309S	OK 67.70, OK 67.75	OK Autrod 309LSi, OK Autrod 309MoL
EN 10095	X8CrNi25-21	1.4845	310S24	OK 67.13, OK 67.15	OK Autrod 310
EN 10095	X9CrNiSiN21-11-2	1.4835	S30815	OK 62.53	
AUSTENITIC-FERRITIC					
EN 10088-1	-	1.4162	S32101	OK 67.56	OK Autrod 2307
EN 10088-1	X2CrNiN23-4	1.4362	S32304	OK 67.56	OK Autrod 2307
EN 10088-1	X2CrNiMoN22-5-3	1.4462	S31803	OK 67.50, OK 67.53, OK 67.55	OK Autrod 2209
EN 10088-1	X2CrNiMoN25-7-4	1.4410	S32750	OK 68.53, OK 68.55	OK Autrod 2509
EN 10088-1	X2CrNiMoCuWN25-7-4	1.4501	S32760	OK 68.53, OK 68.55	OK Autrod 2509

	Wires for TIG welding	Tubular cored wires for MIG/MAG	Wires for SA welding
	OK Tigrod 308L, OK Tigrod 308LSi	Shield-Bright 308L, Shield-Bright 308L X-tra, OK Tubrod 15.30	OK Autrod 308L
	OK Tigrod 308L, OK Tigrod 308LSi	Shield-Bright 308L, Shield-Bright 308L X-tra, OK Tubrod 15.30	OK Autrod 308L
LNbTi	OK Tigrod 308L, OK Tigrod 308LSi, OK Tigrod 430Ti	Shield-Bright 308L, Shield-Bright 308L X-tra, OK Tubrod 15.30	OK Autrod 308L
	OK Tigrod 308L, OK Tigrod 308LSi	Shield-Bright 308L, Shield-Bright 308L X-tra, OK Tubrod 15.30	OK Autrod 308L
	OK Tigrod 310		OK Autrod 310
	OK Tigrod 308L, OK Tigrod 308LSi	Shield-Bright 308L, Shield-Bright 308L X-tra, OK Tubrod 15.30	OK Autrod 308L
	OK Tigrod 308L, OK Tigrod 308LSi	Shield-Bright 308L, Shield-Bright 308L X-tra, OK Tubrod 15.30	OK Autrod 308L
	OK Tigrod 308L, OK Tigrod 308LSi	Shield-Bright 308L, Shield-Bright 308L X-tra, OK Tubrod 15.30	OK Autrod 308L
	OK Tigrod 308L, OK Tigrod 308LSi	Shield-Bright 308L, Shield-Bright 308L X-tra, OK Tubrod 15.30	OK Autrod 308L
	OK Tigrod 312		OK Autrod 312
	OK Tigrod 347Si	Shield-Bright 347, Shield-Bright 347 X-tra	OK Autrod 347
	OK Tigrod 347Si	Shield-Bright 347, Shield-Bright 347 X-tra	OK Autrod 347
	OK Tigrod 316L, OK Tigrod 316LSi	Shield-Bright 316L, Shield-Bright 316L X-tra, OK Tubrod 15.31	OK Autrod 316L
	OK Tigrod 316L, OK Tigrod 316LSi	Shield-Bright 316L, Shield-Bright 316L X-tra, OK Tubrod 15.31	OK Autrod 316L
	OK Tigrod 316L, OK Tigrod 316LSi	Shield-Bright 316L, Shield-Bright 316L X-tra, OK Tubrod 15.31	OK Autrod 316L
	OK Tigrod 316L, OK Tigrod 316LSi	Shield-Bright 316L, Shield-Bright 316L X-tra, OK Tubrod 15.31	OK Autrod 316L
	OK Tigrod 316L, OK Tigrod 316LSi	Shield-Bright 316L, Shield-Bright 316L X-tra, OK Tubrod 15.31	OK Autrod 316L
	OK Tigrod 318Si		OK Autrod 318
	OK Tigrod 318Si		OK Autrod 318
	OK Tigrod 16.95		OK Autrod 16.97
	OK Tigrod 310		OK Autrod 310MoL
	OK Tigrod 385, OK Tigrod 19.82		OK Autrod 385, OK Autrod 19.82
	OK Tigrod 385, OK Tigrod 19.82	Shield-Bright 317L, Shield-Bright 317L X-tra	OK Autrod 385, OK Autrod 19.82
	OK Tigrod 19.82		OK Autrod 19.82
	OK Tigrod 19.81		OK Autrod 19.81
	OK Tigrod 19.81		OK Autrod 19.81
	OK Tigrod 309LSi, OK Tigrod 309MoL	Shield-Bright 309L, Shield-Bright 309L X-tra	OK Autrod 309L
	OK Tigrod 310		OK Autrod 310
	OK Tigrod 2307	Shield-Bright 2307	
	OK Tigrod 2307	Shield-Bright 2307	OK Autrod 2307
	OK Tigrod 2209	OK Tubrod 14.27, OK Tubrod 14.37	OK Autrod 2209
	OK Tigrod 2509	OK Tubrod 14.28	OK Autrod 2509
	OK Tigrod 2509	OK Tubrod 14.28	OK Autrod 2509