OK Flux 10.99

This flux/wire combination is designed for welding of stainless chromium nickel no stabilized alloys. The weld metal is austenitic with adequate amount of ferrite and offers good resistance to uniform corrosion. OK Flux 10.99 works equally well on DC+ and AC current.

Specifications	
Classifications	EN ISO 14174 : S A FB 2 55 53 AC

Slag Type	Fluoride basic CaF2 - MgO - Al2O3
Alloy Transfer	Non alloying
Density	nom: 1.0 kg/dm3
Basicity Index	nom: 2.1

Flux Consumption		
Volts	**kg Flux / kg Wire DC+**	**kg Flux / kg Wire AC**
34 V	0.9 kg	1.1 kg
30 V	0.8 kg	0.8 kg
26 V	0.7 kg	0.6 kg
38 V	1.1 kg	1.3 kg

Condition : Dimension 3.2 mm , Amps 400 A , Travel Speed 50 cm/min

Classifications		
Wire	**SFA/AWS - EN ISO**	**AWS - As Welded**
OK Autrod 308L	A5.9:ER308L/ 14343-A:S 19 9 L	-
OK Autrod 309L	A5.9:ER309L/ 14343-A:S 23 12 L	-
OK Autrod 316L	A5.9:ER316L/ 14343-A:S 19 12 3 L	-
OK Autrod 316LMn	A5.9:ER316LMn/ 14343-A:S 20 16 3 Mn N L	-
OK Autrod NiCrMo-4	A5.14:ERNiCrMo-4/ 18274:S Ni 6276 (NiCr15Mo16Fe6W4)	A5.39: F100A32-ERNiCrMo-4/NiCrMo-4

Approvals		
Wire	**CCS**	**LR**
OK Autrod NiCrMo-4	•	•

Typical Wire Composition %									
C	**Mn**	**Si**	**Ni**	**Cr**	**Mo**	**Cu**	**N**	**FN WRC-92**	**W**
OK Autrod 308L									
0.02	1.9	0.4	9.8	19.8	-	-	0.05	-	-
OK Autrod 309L									
0.02	1.8	0.4	13.4	23.2	0.10	0.1	0.05	10	-
OK Autrod 316L									
0.01	1.7	0.4	12.0	18.2	2.6	-	0.04	7	-
OK Autrod 316LMn									
0.01	6.9	0.4	15.9	19.9	3.0	-	0.18	-	-
OK Autrod NiCrMo-4									
0.01	0.45	0.05	Bal.	15.5	16.1	-	-	-	3.5

Typical Wire Composition %
Fe
OK Autrod NiCrMo-4
5.8

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Typical Weld Metal Analysis %									
C	**Mn**	**Si**	**S**	**P**	**Ni**	**Cr**	**Mo**	**V**	**Cu**
OK Autrod 308L DC+									
0.02	1.9	0.3	-	-	9.8	19.2	0.1	-	-
OK Autrod 308L									
-	-	-	0.01	0.02	-	-	-	-	0.2
OK Autrod 308L AC									
0.025	1.9	0.3	-	-	9.8	19.2	0.1	-	-
OK Autrod 309L AC									
0.030	1.9	0.4	-	-	13.0	22.0	0.1	-	-
OK Autrod 309L									
-	-	-	0.01	0.02	-	-	-	-	0.04
OK Autrod 316L									
-	-	-	0.01	0.02	-	-	-	-	0.2
OK Autrod 316L AC									
0.025	1.7	0.4	-	-	12.0	18.3	2.6	-	-
OK Autrod 316LMn									
0.03	7.0	0.5	0.01	0.02	16.0	20.0	3.0	-	0.30
OK Autrod NiCrMo-4									
0.015	0.7	0.08	0.002	0.006	Bal	15.2	15.6	0.1	0.1

Typical Weld Metal Analysis %				
N	**Co**	**FN WRC-92**	**W**	**Fe**
OK Autrod 308L DC+				
0.07	-	6	-	-
OK Autrod 308L AC				
0.07	-	6	-	-
OK Autrod 309L AC				
0.09	-	-	-	-
OK Autrod 316L AC				
0.05	-	6	-	-
OK Autrod 316LMn				
0.17	-	-	-	-
OK Autrod NiCrMo-4				
-	0.1	-	3.7	6.5

Typical Mechanical Properties					
Wire	**Condition**	**Yield Strength**	**Tensile Strength**	**Elongation**	**Charpy V-Notch**
OK Autrod 308L	As Welded DC+	400 MPa	560 MPa	36 %	85 J @ -20 °C 80 J @ -40 °C 75 J @ -60 °C 50 J @ -196 °C
OK Autrod 308L	As Welded AC	400 MPa	560 MPa	36 %	105 J @ -20 °C 100 J @ -40 °C 90 J @ -60 °C 55 J @ -196 °C
OK Autrod 309L	As Welded AC	410 MPa	575 MPa	36 %	105 J @ -20 °C 100 J @ -40 °C

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Typical Mechanical Properties					
Wire	**Condition**	**Yield Strength**	**Tensile Strength**	**Elongation**	**Charpy V-Notch**
					95 J @ -60 °C 85 J @ -110 °C
OK Autrod 316L	As Welded AC	410 MPa	570 MPa	35 %	110 J @ -20 °C 105 J @ -40 °C 100 J @ -60 °C 70 J @ -196 °C
OK Autrod 316LMn	As Welded 400A, 30V, 33m/h AC	420 MPa	630 MPa	40 %	105 J @ -60 °C 90 J @ -110 °C 55 J @ -196 °C
OK Autrod NiCrMo-4	As Welded HI ~0,9-1,1 kJ/mm DC+	480 MPa	720 MPa	42 %	75 J @ -196 °C
OK Autrod NiCrMo-4	As Welded HI ~0,9-1,1 kJ/mm AC	480 MPa	720 MPa	42 %	100 J @ -196 °C