

OK Flux 10.92

OK Flux 10.92 is an agglomerated, Cr-alloying flux which is designed for the butt welding of stainless steels. It can also be used for strip clad-ding with austenitic stainless welding strips. The chromium alloying effect of OK Flux 10.92 compensates for Cr losses in the arc during welding.

Specifications

Classifications	SFA/AWS A5.9 Approvals EN 1207
Approvals	NAKS/HAKC : RD 03-613-03

Approvals are based on factory location. Please contact ESAB for more information.

Welding Current	1200 A
Slag Type	Calcium silicate SiO ₂ -MgO-Al ₂ O ₃ -(CaF ₂)
Alloy Transfer	Chromium compensating
Density	nom: 1.0 kg/dm ³
Basicity Index	nom: 1.0

Flux Consumption

Volts	kg Flux / kg Wire DC+
34 V	0.7 kg
30 V	0.55 kg
26 V	0.4 kg
38 V	0.9 kg

Conditions : Dimension 4.0 mm , Amps 580 A , Travel speed 33 m/h

Classifications

Wire	AWS/EN	AWS - As Welded
OK Autrod 16.97	14343-A:S 18 8 Mn	-
OK Autrod 308L	A5.9:ER308L/ 14343-A:S 19 9 L	-
OK Autrod 309L	A5.9:ER309L/ 14343-A:S 23 12 L	A5.39: F85A4-ER309L/309L
OK Autrod 316L	A5.9:ER316L/ 14343-A:S 19 12 3 L	A5.39: F80A10-ER316L/316L
OK Autrod 318	A5.9:ER318/ 14343-A:S 19 12 3 Nb	-
OK Autrod 347	A5.9:ER347/ 14343-A:S 19 9 Nb	-

Approvals

Combined with Wire	VdTÜV	BV
OK Autrod 308L	•	-
OK Autrod 316L	•	•
OK Autrod 318	•	-
OK Autrod 347	•	-

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni	Cr	Mo	Cu	N
OK Autrod 16.97									
0.04	5.0	0.95	0.01	0.02	8.5	18.8	0.1	-	-
OK Autrod 308L Current: DC+, 420A, 27V									
0.02	1.0	0.9	-	-	10.0	20.0	-	-	-
OK Autrod 309L									
0.02	1.2	0.7	0.01	0.02	12.9	22.6	0.04	0.01	0.08
OK Autrod 316L									
0.02	1.1	0.7	0.01	0.02	11.6	18.1	2.5	0.15	0.05

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Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni	Cr	Mo	Cu	N
OK Autrod 318									
0.035	1.2	0.5	-	-	12.0	18.5	2.6	0.2	-
OK Autrod 347 Current: DC+, 420 A, 27 V									
0.040	0.9	0.75	-	-	9.7	19.8	-	-	-

Typical Weld Metal Analysis %

Nb	FN WRC-92
OK Autrod 309L	
-	7
OK Autrod 316L	
0.01	7
OK Autrod 318	
0.3	-
OK Autrod 347 Current: DC+, 420 A, 27 V	
0.5	9

Typical Wire Composition %

C	Mn	Si	Ni	Cr	Mo	Cu	N	Nb	FN WRC-92
OK Autrod 16.97									
0.07	6.5	0.4	8.2	18.9	-	-	-	-	-
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 318									
0.04	1.8	0.4	11.5	18.9	2.6	-	0.04	0.7	11
OK Autrod 347									
0.04	1.4	0.4	9.5	19.2	-	-	0.05	0.6	7

Typical Mechanical Properties

Combined with Wire	Condition	Yield Strength	Tensile Strength	Elongation	Charpy V-Notch
OK Autrod 16.97	As Welded DC+	450 MPa (65 ksi)	630 MPa (91 ksi)	42 %	60 J @ 20 °C (44 ft-lb @ 68 °F) 55 J @ -20 °C (41 ft-lb @ -4 °F) 45 J @ -60 °C (33 ft-lb @ -76 °F)
OK Autrod 308L	As Welded DC+	365 MPa (53 ksi)	580 MPa (84 ksi)	38 %	60 J @ -60 °C (44 ft-lb @ -76 °F) 50 J @ -110 °C (37 ft-lb @ -166 °F)
OK Autrod 309L	As Welded DC+	440 MPa (64 ksi)	600 MPa (87 ksi)	30 %	55 J @ -20 °C (41 ft-lb @ -4 °F) 50 J @ -40 °C (37 ft-lb @ -40 °F)
OK Autrod 316L	As Welded DC+	415 MPa (60 ksi)	570 MPa (83 ksi)	32 %	55 J @ -70 °C (41 ft-lb @ -94 °F)

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Typical Mechanical Properties

Combined with Wire	Condition	Yield Strength	Tensile Strength	Elongation	Charpy V-Notch
OK Autrod 318	As Welded	440 MPa (64 ksi)	600 MPa (87 ksi)	42 %	100 J @ 20 °C (74 ft-lb @ 68 °F) 90 J @ -60 °C (67 ft-lb @ -76 °F) 40 J @ -110 °C (30 ft-lb @ -166 °F)
OK Autrod 347	As Welded DC+	470 MPa (68 ksi)	640 MPa (93 ksi)	35 %	65 J @ 20 °C (48 ft-lb @ 68 °F) 55 J @ -60 °C (41 ft-lb @ -76 °F) 40 J @ -110 °C (30 ft-lb @ -166 °F)