

OK Flux 10.94

OK Flux 10.94 is a basic chromium-alloying flux for the butt welding of stainless steels. OK Flux 10.94 is a suitable flux for welding stainless, high-alloyed CrNiMo steels like super-duplex stainless steels.

Classifications	EN ISO 14174 : S A AF 2 56 64 DC
Slag Type	Fluoride basic CaF ₂ -Al ₂ O ₃ -SiO ₂
Alloy Transfer	Chromium compensating
Density	nom 1.0 kg/dm ³
Basicity Index	nom 1.9

Flux Consumption

Volts	kg Flux / kg Wire DC+	kg Flux / kg Wire AC
26 V	0.5 kg	-
30 V	0.6 kg	-
34 V	0.8 kg	-
38 V	1.0 kg	-

Dimensions	Amps	Travel Speed
4.0 mm	580 A	33 m/h

Classifications

Wire	SFA/AWS - EN ISO	AWS - As Welded
OK Autrod 2209	A5.9:ER2209/ 14343-A:S 22 9 3 N L	
OK Autrod 2509	A5.9:ER2594/ 14343-A:S 25 9 4 N L	A5.39: F120A8-ER2594/2594
OK Autrod 2509	A5.9:ER2594/ 14343-A:S 25 9 4 N L	A5.39: F120A8-ER2594/2594
OK Autrod 308L	A5.9:ER308L/ 14343-A:S 19 9 L	
OK Autrod 347	A5.9:ER347/ 14343-A:S 19 9 Nb	

Typical Mechanical Properties

Combined with Wire	Condition	Yield Strength	Tensile Strength	Elongation	Charpy V-Notch
OK Autrod 2209	As Welded DC+hr ()	630 MPa (91 ksi)	780 MPa (113 ksi)	30 %	60 J @ -40°C (44 ft-lb @ -40°F) 42 J @ -60°C (31 ft-lb @ -76°F)
OK Autrod 2509	As Welded DC+hr ()	625 MPa (91 ksi)	830 MPa (120 ksi)	28 %	90 J @ 20°C (67 ft-lb @ 68°F) 50 J @ -60°C (37 ft-lb @ -76°F)
OK Autrod 2509	As Welded DC+hr ()	680 MPa (99 ksi)	870 MPa (126 ksi)	25 %	70 J @ 20°C (52 ft-lb @ 68°F) 50 J @ -60°C (37 ft-lb @ -76°F)
OK Autrod 308L	As Welded hr ()	400 MPa (58 ksi)	560 MPa (81 ksi)	40 %	85 J @ 20°C (63 ft-lb @ 68°F) 70 J @ -40°C (52 ft-lb @ -40°F) 60 J @ -60°C (44 ft-lb @ -76°F)
OK Autrod 308L	As Welded DC+hr ()	400 MPa	560 MPa	40 %	85 J @ 20°C 70 J @ -40°C 60 J @ -60°C
OK Autrod 347	As Welded ()	455 MPa (66 ksi)	620 MPa (90 ksi)	35 %	100 J @ 20°C (74 ft-lb @ 68°F) 70 J @ -60°C (52 ft-lb @ -76°F) 50 J @ -110°C (37 ft-lb @ -166°F) 30 J @ -196°C (22 ft-lb @ -320.8°F)
OK Autrod 347	As Welded DC+hr ()	455 MPa	620 MPa	38 %	100 J @ 20°C 70 J @ -60°C 50 J @ -110°C 30 J @ -196°C

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni	Cr	Mo	Cu	N
OK Autrod 2209 Current: DC+, 420A, 27V									
0.01	1.3	0.6	0.01	0.02	8.5	23.0	3.0	0.1	0.14
OK Autrod 2509 Current: DC+, 400A, 28V, 48cm/min									

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Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni	Cr	Mo	Cu	N
0.02	0.4	0.45	0.01	0.017	9.3	24.5	3.5	0.10	0.24
OK Autrod 308L DC+									
0.02	1.4	0.5	-	-	9.5	20	0.2	0.1	-
OK Autrod 347 DC+									
0.04	1.0	0.5	-	-	9.6	19.6	-	-	-

Nb	W	FN WRC-92
OK Autrod 2209 Current: DC+, 420A, 27V		
-	-	45
OK Autrod 2509 Current: DC+, 400A, 28V, 48cm/min		
-	<0.002	54
OK Autrod 308L DC+		
-	-	11
OK Autrod 347 DC+		
0.5	-	9