

OK Flux 10.93

OK Flux 10.93 is an agglomerated, basic flux for submerged arc welding of stainless steels. It is used for single and multi-run welding of all plate thicknesses. It can be combined with a wide range of stainless steel wires and is commonly used for butt & fillet welding of all standard austenitic and higher alloyed stainless steels. It provides a very good slag detachability, a smooth surface finish and an excellent bead appearance.

Classifications	EN ISO 14174 : S A AF 2 56 54 DC
Approvals	CE EN 13479 NAKS/HAKC RD 03-613-03 DB 51.039.10

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

Slag Type	CaF ₂ -Al ₂ O ₃ -SiO ₂
Alloy Transfer	Non alloying
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
OK Autrod 16.10	A5.9: ER308L
OK Autrod 16.11	A5.9: ER347
OK Autrod 16.30	A5.9: ER316L
OK Autrod 16.38	14343-A:S 20 16 3 Mn L
OK Autrod 16.53	A5.9: ER309L
OK Autrod 16.97	14343-A:S 18 8 Mn
OK Autrod 2209	A5.9:ER2209/ 14343-A:S 22 9 3 N L
OK Autrod 2307	14343-A:S 23 7 N L
OK Autrod 2509	A5.9:ER2594/ 14343-A:S 25 9 4 N L
OK Autrod 308H	A5.9:ER308H/ 14343-A:S 19 9 H
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 309MoL	A5.9:ER309LMo (mod)/ 14343-A:S 23 12 2 L
OK Autrod 310MoL	14343-A:S 25 22 2 N L
OK Autrod 312	A5.9:ER312/ 14343-A:S 29 9
OK Autrod 316H	A5.9:ER316H/ 14343-A:S 19 12 3 H
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 317L	A5.9:ER317L/ 14343-A:S 18 15 3 L
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
OK Autrod 385	A5.9:ER385/ 14343-A:S 20 25 5 Cu L
OK Autrod 410NiMo	14343-A:S 13 4
OK Autrod NiCrMo-3	A5.14:ERNiCrMo-3/ 18274:S Ni 6625 (NiCr22Mo9Nb)
OK Autrod NiCrMo-4	A5.14:ERNiCrMo-4/ 18274:S Ni 6276 (NiCr15Mo16Fe6W4)

Approvals

Combined with Wire	ABS	BV	DNV	GL	LR	DB	CE	RINA	ClassNK	VdTÜV	DNV-GL
OK Autrod 16.97	-	-	•	-	-	-	-	-	-	-	-
OK Autrod 2209	•	•	•	•	•	-	•	•	•	•	•
OK Autrod 2509	-	-	-	-	-	-	•	-	-	•	-
OK Autrod 308L	•	•	•	-	-	•	•	-	-	•	-
OK Autrod 308L LF	-	-	-	-	-	-	•	-	-	•	-

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Approvals

Combined with Wire	ABS	BV	DNV	GL	LR	DB	CE	RINA	ClassNK	VdTÜV	DNV-GL
OK Autrod 309L	•	-	•	-	•	-	•	-	-	•	-
OK Autrod 316L	•	-	•	-	-	•	•	-	-	•	-
OK Autrod 318	-	-	-	-	-	•	•	-	-	•	-
OK Autrod 347	-	-	-	-	-	•	•	-	-	•	-
OK Autrod 385	-	-	-	-	-	-	-	-	-	•	-

Typical Mechanical Properties

Combined with Wire	Condition	Yield Strength	Tensile Strength	Elongation	Charpy V-Notch
OK Autrod 16.10	As Welded DC+	410 MPa	570 MPa	38 %	80 J @ -60°C 60 J @ -110°C 45 J @ -196°C
OK Autrod 16.11	As Welded DC+	420 MPa	590 MPa	36 %	60 J @ -60°C 45 J @ -110°C 30 J @ -196°C
OK Autrod 16.30	As Welded DC+	400 MPa	530 MPa	35 %	70 J @ -60°C 65 J @ -110°C 40 J @ -196°C
OK Autrod 16.53	As Welded DC+	430 MPa	570 MPa	35 %	65 J @ -60°C 55 J @ -110°C 35 J @ -196°C

Typical Weld Metal Analysis %

C	Mn	Si	Ni	Cr	Mo	Nb
OK Autrod 16.10 DC+						
0.02	1.40	0.60	8.60	18.80	-	-
OK Autrod 16.11 DC+						
0.05	1.20	0.55	8.50	18.30	-	0.50
OK Autrod 16.30 DC+						
0.02	1.40	0.50	10.60	17.50	2.00	-
OK Autrod 16.53 DC+						
0.02	1.40	0.50	11.60	22.10	-	-