

OK Flux 10.62

Agglomerated fluoride-basic flux for Submerged Arc Welding. It is used for multi-run welding of thick section materials. OK Flux 10.62 with advanced slag detachability creates soft transitions to side walls, concave weld bead profiles and very smooth weld beads. The strong grains allow multiple recycling cycles and prolonged flux hopper refilling intervals. The original grain size distribution is maintained which increases product consistency and thus contributes to high quality of the welding joints.

OK Flux 10.62 can be used with high parameters and all SAW process variants such as Tandem, Twin, ICE, 3 or 4 wire process in every multi pass joint including narrow gap. It is suitable for highest demands on impact properties, low temperature toughness, strength and CTOD-values. It is used in the offshore constructions, pressure vessels, power generation, ship building, pipe mills, civil constructions, transport industries, etc. Produces weld metal with hydrogen contents maximum 4 ml/100g, in BlockPac (moisture protection).

Specifications	
Classifications	EN ISO 14174 : S A FB 1 55 AC H4 (only BlockPac/moisture protection)
Approvals	CE : EN 13479 DB : 51.039.07 NAKS/HAKC : RD 03-613-03

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

Diffusible Hydrogen	max 4 ml /100g in BlockPac (moisture protection)
Slag Type	Fluoride-basic
Alloy Transfer	No Silicon or Manganese alloying
Density	nom: 1.1 kg/dm ³
Basicity Index	nom: 3.2
Grain Size	0.2-1.6 mm (10x65 mesh)

Flux Consumption		
Volts	kg Flux / kg Wire DC+	kg Flux / kg Wire AC
34 V	1.3 kg	1.2 kg
30 V	1.0 kg	0.9 kg
26 V	0.7 kg	0.6 kg
38 V	1.6 kg	1.4 kg

Condition : Dimension Ø 4.0 mm , Amps 580 A , Travel Speed 55 cm/min

Classifications				
Wire	SFA/AWS - EN ISO	EN - As Welded	AWS - As Welded	AWS - PWHT
ESAB SA10K	A5.17: EH10K	-	A5.17: F7A6-EH10K	A5.17: F7P8-EH10K
OK Autrod 12.24L	A5.23: EA2	-	A5.23: F8A4-EA2-A2	A5.23: F8P4-EA2-A2
OK Autrod 12.32	A5.17: EH12K / 14171-A: S3Si	14171-A: S 46 6 FB S3Si	A5.17: F7A8-EH12K	A5.17: F7P8-EH12K
OK Autrod 12.33L	A5.23: EA3K	-	A5.23: F10A4-EA3K-G	A5.23: F9P4-EA3K-G
OK Autrod 12.40L	A5.17: EH14	-	A5.17: F7A6-EH14	A5.17: F7P6-EH14
OK Autrod 13.40	A5.23: EG / 14171-A: S3Ni1Mo; 26304-A: S3Ni1Mo; 26304-B: (SUN2M2)	26304-A: S 55 6 FB S3Ni1Mo	A5.23: F9A8-EG-F3	A5.23: F9P8-EG-F3
OK Autrod 13.43	A5.23: EG / 26304-A: S3Ni2,5CrMo; 26304-B: (SUN4C1M3)	26304-A: S 69 6 FB S3Ni2, 5CrMo	A5.23: F11A8-EG-G	A5.23: F11P8-EG-G

Approvals									
Combined with Wire	ABS	BV	CE	DB	DNV	LR	VdTÜV	RINA	RS
OK Autrod 12.32	•	•	•	•	•	•	•	•	•
OK Autrod 13.40	•	•	•	-	•	•	•	-	•
OK Autrod 13.43	•	•	•	-	•	•	-	-	-

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Typical Weld Metal Analysis %

C	Mn	Si	Ni	Cr	Mo
ESAB SA10K DC+, 550A, 29V					
0.08	1.45	0.25	-	-	-
OK Autrod 12.24L DC+, 550A, 29V					
0.07	1.10	0.25	-	-	0.45
OK Autrod 12.32 AC, 580A, 29V					
0.11	1.50	0.30	-	-	-
OK Autrod 12.32 DC+, 580A, 29V					
0.10	1.60	0.35	-	-	-
OK Autrod 12.33L DC+, 550A, 29V					
0.06	1.70	0.75	-	-	0.40
OK Autrod 12.40L DC+, 550A, 29V					
0.09	1.75	0.15	-	-	-
OK Autrod 12.40I DC+, 550A, 29V					
0.09	1.75	0.15	-	-	-
OK Autrod 13.40 AC, 580A, 29 V					
0.10	1.45	0.23	0.90	-	0.50
OK Autrod 13.40 DC+, 580A, 29 V					
0.07	1.50	0.26	0.90	-	0.50
OK Autrod 13.43 AC, 580A, 29 V					
0.12	1.45	0.22	2.20	0.60	0.50
OK Autrod 13.43 DC+, 580A, 29 V					
0.11	1.50	0.25	2.20	0.60	0.50

Typical Mechanical Properties

Combined with Wire	Condition	Yield Strength	Tensile Strength	Elongation	Charpy V-Notch
ESAB SA10K	As Welded AWS DC+	490 MPa	570 MPa	28 %	100 J @ -29 °C 55 J @ -40 °C 40 J @ -51 °C
ESAB SA10K	Stress Relieved AWS DC+	450 MPa	540 MPa	30 %	110 J @ -29 °C 80 J @ -40 °C 35 J @ -51 °C 30 J @ -62 °C
OK Autrod 12.24L	Stress Relieved AWS DC+	530 MPa	590 MPa	27 %	70 J @ -18 °C 35 J @ -29 °C 30 J @ -40 °C
OK Autrod 12.24L	As Welded AWS DC+	550 MPa	620 MPa	25 %	90 J @ -18 °C 40 J @ -29 °C 30 J @ -40 °C
OK Autrod 12.32	As Welded AWS DC+	475 MPa	560 MPa	28 %	130 J @ -30 °C 110 J @ -40 °C 70 J @ -62 °C
OK Autrod 12.32	Stress Relieved AWS DC+	410 MPa	510 MPa	28 %	140 J @ -30 °C 110 J @ -40 °C 60 J @ -62 °C
OK Autrod 12.33L	As Welded AWS DC+	660 MPa	740 MPa	25 %	45 J @ -29 °C 30 J @ -40 °C
OK Autrod 12.33L	Stress Relieved AWS DC+	620 MPa	690 MPa	26 %	50 J @ -29 °C 30 J @ -40 °C
OK Autrod 12.40L	Stress Relieved AWS	450 MPa	550 MPa	28 %	110 J @ -29 °C

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Typical Mechanical Properties					
Combined with Wire	Condition	Yield Strength	Tensile Strength	Elongation	Charpy V-Notch
	DC+				90 J @ -40 °C 50 J @ -51 °C
OK Autrod 12.40L	As Welded AWS DC+	520 MPa	610 MPa	26 %	100 J @ -29 °C 85 J @ -40 °C 40 J @ -51 °C
OK Autrod 13.40	As Welded AWS DC+	610 MPa	690 MPa	24 %	90 J @ -40 °C 80 J @ -50 °C 50 J @ -62 °C
OK Autrod 13.40	Stress Relieved AWS DC+	600 MPa	680 MPa	26 %	60 J @ -40 °C 45 J @ -62 °C
OK Autrod 13.43	As Welded AWS DC+	700 MPa	800 MPa	21 %	100 J @ -20 °C 75 J @ -40 °C 65 J @ -50 °C 50 J @ -62 °C
OK Autrod 13.43	Stress Relieved AWS DC+	695 MPa	790 MPa	21 %	80 J @ -20 °C 60 J @ -40 °C 50 J @ -50 °C 40 J @ -62 °C