

## OK Flux 10.62

Agglomerated fluoride-basic flux for Submerged Arc Welding. Primarily for multi-run welding. For highest demands on impact properties, low temperature toughness, strength and CTOD-values. Especially suitable for narrow gap welding due to good slag detachability and smooth side-wall blending. For offshore constructions, pressure vessels, power generation, shipbuilding, pipe mills, civil constructions, transport industries, etc. Produces low-oxygen weld metal (approx. 300 ppm) with hydrogen contents maximum 5 ml/100 g, in BlockPac (moisture protection) maximum 4 ml/100g. Operates optimally at the lower end of the voltage range. Designed for single and multi wire procedures, for butt and fillet welds. Works equally well on DC and AC current. Single layer and multi layer welding of unlimited plate thickness.

<b>Classifications:</b>	EN ISO 14174:S A FB 1 55 AC H5, EN ISO 14174:S A FB 1 55 AC H4 only BlockPac/moisture-protection
<b>Approvals:</b>	CE EN 13479, NAKS/HAKC RD 03-613-03, DB 51.039.07

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

<b>Diffusible Hydrogen:</b>	max 5 ml H/100g weld metal (Redried flux); max 4 ml H/100g in BlockPac (moisture protection)
<b>Slag Type:</b>	Fluoride-basic
<b>Alloy Transfer:</b>	No Silicon or Manganese alloying
<b>Density:</b>	nom: 1.1 kg/dm <sup>3</sup>
<b>Basicity Index:</b>	nom: 3.2
<b>Grain Size (met):</b>	0.2-1.6 mm (10x65 mesh)

### Flux Consumption

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

Dimensions	Amps	Travel Speed
Ø 4.0 mm	580 A	55 cm/min

Classifications	Wire	Weld Metal		
		EN - As Welded	AWS - As Welded	AWS - PWHT
OK Autrod 12.22	A5.17:EM12K/ 14171-A:S2Si	S 38 5 FB S2Si	A5.17: F7A8-EM12K	A5.17: F6P8-EM12K
OK Autrod 12.24	A5.23:EA2/ 14171-A:S2Mo; 24598-A:S S Mo	S 46 4 FB S2Mo	A5.23: F8A6-EA2-A2	A5.23: F8P6-EA2-A2
OK Autrod 12.32	A5.17:EH12K/ 14171-A:S3Si	S 46 6 FB S3Si	A5.17: F7A8-EH12K	A5.17: F7P8-EH12K
OK Autrod 12.34	A5.23:EA4/ 14171-A:S3Mo; 24598-A:S S MnMo	S 50 4 FB S3Mo	A5.23: F8A6-EA4-A4	A5.23: F8P6-EA4-A4
OK Autrod 12.40	A5.17:EH14/ 14171-A:S4	S 50 4 FB S4	A5.17: F7A6-EH14	A5.17: F7P6-EH14

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Classifications		Weld Metal		
Wire	AWS/EN	EN - As Welded	AWS - As Welded	AWS - PWHT
OK Autrod 13.10 SC	A5.23:EB2R/ 24598-A:S S CrMo1	-	-	A5.23: F8P2-EB2R-B2
OK Autrod 13.20 SC	A5.23:EB3R/ 24598-A:S S CrMo2	-	-	A5.23: F8P2-EB3R-B3
OK Autrod 13.21	A5.23:ENi1/ 14171-A:S2Ni1	S 42 4 FB S2Ni1	A5.23: F7A6-ENi1-Ni1	A5.23: F7P8-ENi1-Ni1
OK Autrod 13.24	A5.23:ENi6/ 14171-A:S3Ni1Mo0,2	S 50 6 FB S3Ni1Mo0.2	A5.23: F8A10-ENi6-Ni6	A5.23: F8P8-ENi6-Ni6
OK Autrod 13.27	A5.23:ENi2/ 14171-A:S2Ni2	S 46 7 FB S2Ni2	A5.23: F7A10-ENi2-Ni2	A5.23: F7P10-ENi2-Ni2
OK Autrod 13.40	A5.23:EG/ 14171-A:S3Ni1Mo 26304-A:S3Ni1Mo 26304-B:(SUN2M2)	S 55 6 FB S3Ni1Mo (DC+)	A5.23:F9A8-EG-F3 (DC+)	A5.23: F9P8-EG-F3
OK Autrod 13.43	A5.23:EG/ 26304-A:S3Ni2,5CrMo; 26304-B:(SUN4C1M3)	S 69 6 FB S3Ni2,5CrMo	A5.23: F11A8-EG-G	A5.23: F11P8-EG-G
OK Autrod 13.49	A5.23:ENi3/ 14171-A:S2Ni3	S 46 8 FB S2Ni3	A5.23: F8A15-ENi3-Ni3	A5.23: F8P15-ENi3-Ni3

## Approvals

Wire	ABS	BV	DNV	GL	LR	DB	CE	RINA	RS	VdTÜV
OK Autrod 12.22	•	•	•	•	•	•	•	-	-	•
OK Autrod 12.24	-	-	-	-	-	-	•	-	-	•
OK Autrod 12.32	•	•	•	•	•	•	•	•	•	•
OK Autrod 12.34	•	•	•	•	•	-	-	-	-	-
OK Autrod 13.10 SC	-	-	-	-	-	•	•	-	-	•
OK Autrod 13.20 SC	-	-	-	-	-	-	•	-	-	•
OK Autrod 13.24	•	•	•	•	•	-	•	-	-	-
OK Autrod 13.27	•	•	•	•	•	•	•	•	•	•
OK Autrod 13.40	•	•	•	•	•	-	•	-	-	•
OK Autrod 13.43	•	•	•	•	•	-	•	-	-	-
OK Tubrod 15.27S	•	-	•	•	•	-	•	-	-	-

\*Selected production units only. Please contact ESAB for more information.

Visit [esab.com](http://esab.com) to download specific flux/wire combination fact sheets for more details.

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Typical Mechanical Properties					
Wire	Condition	Yield Strength	Tensile Strength	Elongation	Charpy V-Notch
OK Autrod 12.22	As Welded AWS DC+	410 MPa	500 MPa	33 %	170 J @ 0°C 160 J @ -20°C 90 J @ -40°C 70 J @ -50°C 35 J @ -62°C
OK Autrod 12.24	As Welded AWS DC+	500 MPa	580 MPa	25 %	140 J @ 20°C 115 J @ 0°C 80 J @ -20°C 60 J @ -40°C 45 J @ -51°C
OK Autrod 12.32	As Welded AWS DC+	475 MPa	560 MPa	28 %	175 J @ 20°C 150 J @ 0°C 130 J @ -30°C 110 J @ -40°C 70 J @ -62°C
OK Autrod 12.34	As Welded AWS DC+	540 MPa	620 MPa	24 %	170 J @ 20°C 160 J @ 0°C 140 J @ -20°C 115 J @ -40°C 45 J @ -51°C
OK Autrod 12.40	As Welded AWS DC+	530 MPa	620 MPa	26 %	140 J @ 20°C 110 J @ 0°C 80 J @ -20°C 50 J @ -40°C 40 J @ -51°C
OK Autrod 13.10 SC	Stress relieved 690°C 1.0h AWS DC+	500 MPa	610 MPa	26 %	110 J @ -18°C 80 J @ -29°C
OK Autrod 13.20 SC	Stress relieved 690°C 1.0h AWS DC+	525 MPa	620 MPa	25 %	120 J @ -18°C 80 J @ -29°C
OK Autrod 13.21	As Welded AWS DC+	470 MPa	560 MPa	28 %	195 J @ 20°C 185 J @ 0°C 160 J @ -20°C 70 J @ -40°C 60 J @ -51°C
OK Autrod 13.24	As Welded AWS DC+	530 MPa	620 MPa	25 %	120 J @ -40°C 110 J @ -50°C 70 J @ -60°C 50 J @ -73°C
OK Autrod 13.27	As Welded AWS DC+	460 MPa	570 MPa	28 %	140 J @ -20°C 110 J @ -40°C 80 J @ -60°C 50 J @ -73°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 13.43	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 13.49	As Welded AWS DC+	500 MPa	600 MPa	27 %	95 J @ -70°C 40 J @ -101°C

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Typical Weld Metal Analysis %					
C	Mn	Si	Ni	Cr	Mo
<b>OK Autrod 12.22 DC+, 580A, 29V</b>					
0.07	1.0	0.30	-	-	-
<b>OK Autrod 12.24 DC+, 580A, 29V</b>					
0.07	1.0	0.22	-	-	0.5
<b>OK Autrod 12.32 DC+, 580A, 29V</b>					
0.10	1.6	0.35	-	-	-
<b>OK Autrod 12.34 DC+, 580A, 29V</b>					
0.10	1.45	0.21	-	-	0.5
<b>OK Autrod 12.40 DC+, 580A, 29V</b>					
0.08	1.9	0.12	-	-	-
<b>OK Autrod 13.10 SC DC+, 580A, 29V</b>					
0.08	0.7	0.22	-	1.1	0.5
<b>OK Autrod 13.20 SC DC+, 580A, 29V</b>					
0.08	0.60	0.20	-	2.2	0.95
<b>OK Autrod 13.21 DC+, 580A, 29V</b>					
0.06	1.0	0.25	0.9	-	-
<b>OK Autrod 13.24 DC+, 580A, 29V</b>					
0.08	1.4	0.30	0.9	-	0.2
<b>OK Autrod 13.27 DC+, 580A, 29V</b>					
0.06	1.0	0.25	2.1	-	-
<b>OK Autrod 13.40 DC+, 580A, 29V</b>					
0.07	1.50	0.26	0.9	-	0.5
<b>OK Autrod 13.43 DC+, 580A, 29V</b>					
0.11	1.5	0.25	2.2	0.6	0.5
<b>OK Autrod 13.49 DC+, 580A, 29V</b>					
0.06	1.0	0.25	3.1	-	-