

OK Flux 10.83

Agglomerated, aluminate-rutile, low basicity flux-wire-combination for Submerged Arc Welding. High welding speeds. Smooth weld beads and excellent slag detachability. For structural steels, fine grained steels, pressure vessel steels, etc. Primarily used with single- or twin-arc wire systems. For DC and AC. For single pass butt welds, overlap welds and fillet welds at high speeds.

Specifications

Classifications	EN ISO 14174 : S A AR 1 85 AC
Approvals	CE : EN 13479

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

Slag Type	Aluminate-rutile
Alloy Transfer	High Silicon, no Manganese alloying
Density	nom: 1.2 kg/dm ³
Basicity Index	nom: 0.3

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
OK Autrod 12.10	A5.17:EL12/ 14171-A:S1	14171-A: S 38 Z AR S1	A5.17: F7AZ-EL12	A5.17: F6PZ-EL12
OK Autrod 12.22	A5.17:EM12K/ 14171-A:S2Si	14171-A: S 42 Z AR S2Si	A5.17: F7AZ-EM12K	A5.17: F7PZ-EM12K

Approvals

Wire	CE	VdTÜV
OK Autrod 12.22	•	•

Typical Weld Metal Analysis %

C	Mn	Si
OK Autrod 12.10 DC+, 580A, 29V		
0.05	0.5	0.7
OK Autrod 12.10 AC, 580A, 29V		
0.05	0.6	0.7
OK Autrod 12.22 AC, 580A, 29V		
0.06	1.0	0.8
OK Autrod 12.22 DC+, 580A, 29V		
0.05	0.9	0.8

Typical Wire Composition %

C	Mn	Si
OK Autrod 12.10		
0.07	0.52	0.08
OK Autrod 12.22		
0.09	1.01	0.19

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Typical Mechanical Properties

Wire	Condition	Yield Strength	Tensile Strength	Elongation	Charpy V-Notch
OK Autrod 12.10	As Welded EN AC	430 MPa	500 MPa	27 %	50 J @ 20 °C
OK Autrod 12.10	As Welded AWS DC+	440 MPa	520 MPa	30 %	30 J @ 20 °C
OK Autrod 12.22	As Welded EN AC	470 MPa	550 MPa	26 %	70 J @ 20 °C 50 J @ 0 °C
OK Autrod 12.22	As Welded AWS DC+	470 MPa	560 MPa	26 %	50 J @ 20 °C 30 J @ 0 °C