

OK Flux 10.72

Agglomerated aluminate-basic flux for Submerged Arc Welding especially for applications with toughness requirements at low temperature. Excellent slag removal also in narrow V-joints. For wind tower productions, pressure vessels, general constructions etc. Extremely high current carrying capacity. For single or multi wire procedures. Suitable for DC and AC welding. Single layer and multi layer welding of unlimited plate thickness.

Classifications	AWS A5.23 : F9A4-ENi4-Ni4 AWS A5.17 : F7P5-EM14K AWS A5.17 : F7A8-EM12K AWS A5.23 : F8A4-ENi1K-Ni1 AWS A5.17 : F6P8-EM12K ASME SFA 5.23 ASME SFA 5.17
Approvals	CWB CSA W48 F49A6-EM12K-H8 DB 51.039.12 CE EN 13479

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

Diffusible Hydrogen	max 5 ml H/100g weld metal (Redried flux)
Slag Type	Aluminate-basic
Alloy Transfer	No Silicon and moderately Manganese alloying
Density	nom 1.2 kg/dm ³
Basicity Index	nom 1.9
Grain Size	0.315-2.0 mm (9x48 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	AWS/EN	AWS - As Welded	AWS - PWHT
OK Autrod 12.20	A5.17:EM12/ 14171-A:S2	A5.17: F7A8-EM12	A5.17: F6P8-EM12
OK Autrod 12.22	A5.17:EM12K/ 14171-A:S2Si	A5.17: F7A8-EM12K	A5.17: F6P8-EM12K
OK Autrod 12.24	A5.23:EA2/ 14171-A:S2Mo; 24598-A:S S Mo	A5.23: F8A5-EA2-A3	A5.23: F8P5-EA2-A3
OK Autrod 13.24	A5.23:ENi6/ 14171-A:S3Ni1Mo0,2		
OK Autrod 13.27	A5.23:ENi2/ 14171-A:S2Ni2	A5.23: F8A8-ENi2-Ni2	A5.23: F7P8-ENi2-Ni2
OK Autrod 13.62	A5.23:EG/ 14171-A:SZ3TiB		
OK Autrod 13.64	A5.23:EA2TiB/ 14171-A:S2MoTiB	A5.23: F8TA8-EA2TiB	

Approvals

Combined with Wire	DNV	GL	DB	CE	CWB	VdTÜV
OK Autrod 12.20	-	-	•	•	-	•
OK Autrod 12.22	•	•	•	•	•	•
OK Autrod 12.24	-	-	•	•	-	•
OK Autrod 13.27	-	-	-	•	-	-

Typical Mechanical Properties

Combined with Wire	Condition	Yield Strength	Tensile Strength	Elongation	Charpy V-Notch
Spoolarc 75	As Welded ()	550 MPa (76 ksi)	655 MPa (89 ksi)	28 %	149 J @ -40°C (110 ft-lb @ -40°F)
Spoolarc 81	As Welded ()	425 MPa (62 ksi)	515 MPa (75 ksi)	30 %	50 J @ -62°C (35 ft-lb @ -80°F)

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Typical Mechanical Properties

Combined with Wire	Condition	Yield Strength	Tensile Strength	Elongation	Charpy V-Notch
Spoolarc 81	Stress Relieved 1 hr @ 621°C (1150°F) ()	405 MPa (59 ksi)	510 MPa (74 ksi)	32 %	50 J @ -62°C (35 ft-lb @ -80°F)
Spoolarc 81	Stress Relieved 8 hrs @ 621°C (1150°F) ()	400 MPa (58 ksi)	510 MPa (74 ksi)	34 %	163 J @ -46°C (120 ft-lb @ -50°F)
Spoolarc ENi4	As Welded ()	585 MPa (85 ksi)	680 MPa (96 ksi)	26 %	156 J @ -40°C (115 ft-lb @ -40°F)

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni	Mo	Cu
Spoolarc 75							
0.06	1.80	0.50	0.009	0.013	0.90	-	-
Spoolarc 81							
0.06	1.60	0.30	0.0069	0.013	-	-	-
Spoolarc ENi4							
0.07	1.60	0.20	0.006	0.012	1.80	0.15	0.15