OK Flux 10.71

OK Flux 10.71 is a neutral, bonded flux intended primarily for multipass butt and fillet welding of carbon and low alloy steels. It combines outstanding welding performance with excellent weld properties. OK Flux 10.71 is suitable for use with AC and DC, single and multiwire systems at currents up to 1000 amps. It should not be used in applications where there is heavy rust or mill scale on the base plate. Among the many areas where OK 10.71 is used are general structural welding, bridge fabrication, heavy equipment fabrication, and line pipe welding.

Specifications	
Classifications	AWS A5.17 : F7P5- EH12K AWS A5.17 : F7P4-EM14K AWS A5.17 : F7A5-EH12K AWS A5.17 : F7A4-EM13K AWS A5.17 : F7A4-EM12K AWS A5.17 : F7A2-EM14K AWS A5.23 : F8A4-ENi1K-Ni1 AWS A5.23 : F8A2-EA2-A4 AWS A5.23 : F7P0-EA2-A4
Approvals	CWB : AWS A5.23 F9A6-ENi4-Ni4-H8 CWB : AWS A5.23 F8A4-ENi1K-Ni1-H8 CWB : CSA W48 F49A4-EM12K-H8 DB : 51.039.05 NAKS/HAKC : RD 03-613-03 CE EN : 13479

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

Diffusible Hydrogen	max 5 ml/100g weld metal (Redried flux)
Slag Type	Aluminate-basic
Alloy Transfer	Slightly Silicon and moderately Manganese alloying
Density	nom: 1.2 kg/dm3
Basicity Index	nom: 1.5

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

Conditions : Dimension Ø 4.0 mm , Amps 580 A , Travel speed 55 cm/min

Classifications	Wire	Weld Metal	
Wire	**AWS/EN**	**AWS - As Welded**	**AWS - PWHT**
OK Autrod 12.24	AWS A5.23:EA2	F8A2-EA2-A4	F7P0-EA2-A4
Spoolarc 29S	AWS A5.17: EM13K	F7A4-EM13K	-
Spoolarc 53	AWS A5.17: EH12K	F7A5-EH12K	F7P5-EH12K
Spoolarc 71	AWS A5.17: EM14K	F7A2-EM14K	F7P4-EM14K
Spoolarc 75	AWS A5.23: ENi1K	F8A-ENi1K-Ni1	-
Spoolarc 81	AWS A5.17: EM12K	F7A4-EM12K	-

Approvals														
Combined with Wire	**ABS**	**BV**	**CE**	**CWB**	**DB**	**DNV**	**IBR**	**IRS**	**LR**	**M N Dastur**	**PRS**	**RINA**	**UKCA**	**VdTÜV**
ESAB SA10K	-	-	-	-	-	-	●	-	-	-	-	-	-	-
OK Autrod 12.08L	●	-	-	-	-	-	-	●	-	-	-	-	-	-
OK Autrod 12.10	●	●	●	-	●	●	-	-	●	-	●	-	●	●
OK Autrod 12.20	●	●	●	-	●	●	-	-	●	-	●	●	●	●

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Approvals														
Combined with Wire	**ABS**	**BV**	**CE**	**CWB**	**DB**	**DNV**	**IBR**	**IRS**	**LR**	**M N Dastur**	**PRS**	**RINA**	**UKCA**	**VdTÜV**
OK Autrod 12.22	●	●	●	-	●	●	-	-	●	-	-	-	●	●
OK Autrod 12.24	●	●	●	-	●	●	-	-	●	-	●	●	●	●
OK Autrod 12.30	-	-	●	-	●	-	-	-	-	-	-	-	-	●
OK Autrod 12.32	-	-	●	-	●	-	-	-	-	-	-	-	●	●
OK Autrod 12.40L	-	-	-	-	-	●	●	●	●	●	-	-	-	-
OK Autrod 13.27	-	-	-	-	-	-	-	-	-	-	-	-	-	●
OK Autrod 13.36	-	-	●	-	-	-	-	-	-	-	-	-	●	-
Spoolarc 75	-	-	-	●	-	-	-	-	-	-	-	-	-	-
Spoolarc 81	-	-	-	●	-	-	-	-	-	-	-	-	-	-

Typical Weld Metal Analysis %					
C	**Mn**	**Si**	**S**	**P**	**Ni**
OK Autrod 12.24					
0.05	1.04	0.4	-	-	-
Spoolarc 29S					
0.06	1.80	0.80	0.007	0.014	-
Spoolarc 53					
0.07	1.80	0.50	0.010	0.022	-
Spoolarc 71					
0.06	1.70	0.60	0.009	0.018	-
Spoolarc 75					
0.07	1.70	0.70	0.012	0.016	0.90
Spoolarc 81					
0.07	1.50	0.50	0.011	0.020	-

Typical Mechanical Properties					
Combined with Wire	**Condition**	**Yield Strength**	**Tensile Strength**	**Elongation**	**Charpy V-Notch**
OK Autrod 12.24	As Welded	500 MPa (73 ksi)	580 MPa (84 ksi)	24 %	40 J @ -29 °C (30 ft-lb @ -20 °F)
Spoolarc 29S	As Welded	505 MPa (73 ksi)	600 MPa (87 ksi)	30 %	41 J @ -40 °C (30 ft-lb @ -40 °F)
Spoolarc 53	As Welded	530 MPa (77 ksi)	625 MPa (91 ksi)	28 %	61 J @ -46 °C (45 ft-lb @ -50 °F)
Spoolarc 53	Stress Relieved 621C (1150F) (1 hour(s))	448 MPa (65 ksi)	545 MPa (79 ksi)	32 %	108 J @ -46 °C (80 ft-lb @ -50 °F)
Spoolarc 71	As Welded	525 MPa (76 ksi)	600 MPa (87 ksi)	27 %	67 J @ -29 °C (48 ft-lb @ -20 °F)
Spoolarc 71	Stress Relieved 621C (1150F) (8 hour(s))	510 MPa (74 ksi)	625 MPa (91 ksi)	30 %	47 J @ -40 °C (35 ft-lb @ -40 °F)
Spoolarc 71	Stress Relieved 621C (1150F) (1 hour(s))	510 MPa (74 ksi)	635 MPa (92 ksi)	30 %	51 J @ -40 °C (38 ft-lb @ -40 °F)
Spoolarc 75	As Welded	540 MPa (78 ksi)	625 MPa (91 ksi)	28 %	58 J @ -40 °C (43 ft-lb @ -40 °F)
Spoolarc 81	As Welded	470 MPa (68 ksi)	560 MPa (81 ksi)	30 %	60 J @ -40 °C (44 ft-lb @ -40 °F)