



OK Flux 80

Fused Flux



OK Flux 80 is a neutral, fused flux for multipass welding of heavy plate. It is used primarily for the fabrication of pressure vessels, boilers, valves and fittings. OK Flux 80 produces good weld metal properties when used with a wide variety of carbon and alloy steel wires. There is no limit to the thickness of plate that can be successfully welded with OK Flux 80. It is suitable for use with AC or DC power in single or multiwire applications. It is available in two mesh sizes. The 12x65 size is recommended for one and two wire welding at currents of up to 800 amps. The 20x200 size is suitable for use at up to 1100 amps and is recommended for multiwire and narrow groove welding. OK Flux 80 should only be used in applications where the base plate is free of rust and mill scale.

Code and Specification Data:

AWS A5.17 F6P2-EH14
 AWS A5.17 F7A2-EH14
 AWS A5.17 F6A2-EL12
 AWS A5.17 F7A2-EM12K
 AWS A5.23 P8PZ-ECB2-B2
 AWS A5.23 P9PZ-EB2-B2
 AWS A5.23 F7P0-EA3-A3
 AWS A5.23 F8A0-EA3-A3

AWS A5.23 F7P2-EA2-A2
 AWS A5.23 F7A0-EA2-A2

Basicity Index: 0.95

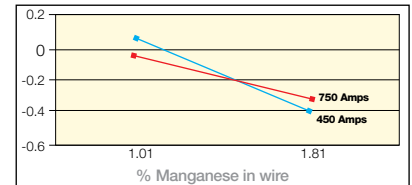
Chemical Composition:

SiO ₂ + TiO ₂	35	CaO + MgO	35
Al ₂ + MnO	20	Fluorides	5

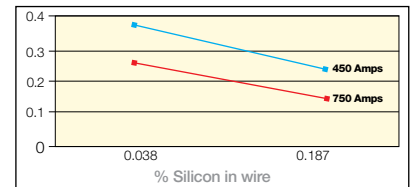
Flux Consumption (lb. Flux / lb. Wire)

Voltage	DC+
26	0.93
30	1.23
34	1.75
38	1.98

% Mn pick-up from flux



% Si pick-up from flux



Typical Mechanical Properties

Wire	Weld Condition	Yield Strength		Tensile Strength		% Elong in 2" (51 mm)	CVN		Temp.		AWS Class
		ksi	(MPa)	ksi	(MPa)		ft.-lbs.	(J)	@ °F	(°C)	
Spoolarc 80	As Welded	57	395	67	460	28	52	70	-20	-29	F6A2-EL12
Spoolarc 81	As Welded	64	440	75	515	30	35	47	-20	-29	F7A2-EM12K
Spoolarc 36	As Welded	66	485	78	540	26	35	47	-20	-29	F7A2-EH14
Spoolarc 36	Stress Relieved 1 hr. @ 1,150°F	51	350	70	485	31	50	68	-20	-29	F6P2-EH14
Spoolarc 40B	As Welded	68	470	82	565	26	29	39	0	-18	F7A0-EA2-A2
Spoolarc 40B	Stress Relieved 1 hr. @ 1,150°F	66	455	80	550	25	25	34	-20	-29	F7P2-EA2-A2
Spoolarc 40B	Stress Relieved 16 hrs. @ 1,150°F	58	400	75	515	27	24	33	-20	-29	F7P2-EA2-A2
Spoolarc 40	As Welded	74	510	90	620	25	29	39	0	-18	F8A0-EA3-A3
Spoolarc 40	Stress Relieved 1 hr. @ 1,150°F	67	462	84	579	26	24	33	0	-18	F7P0-EA3-A3
Spoolarc U515	Stress Relieved 1 hr. @ 1,150°F	88	605	102	705	22	28	38	68	20	F9PZ-EB2-B2
Spoolarc U515	Stress Relieved 8 hrs. @ 1,150°F	78	540	92	635	22	23	31	0	-18	F9PZ-EB2-B2

Typical Undiluted Weld Metal Analysis (%)

Wire	C	Mn	Si	P	S	Cr	Ni	Mo	Cu
Spoolarc 80	0.05	0.75	0.28	0.021	0.015	-	-	-	-
Spoolarc 81	0.07	1.17	0.45	0.020	0.014	-	-	-	-
Spoolarc 36	0.08	1.59	0.42	0.020	0.014	-	-	-	-
Spoolarc 40B	0.08	1.10	0.39	0.018	0.014	-	-	0.46	0.46
Spoolarc 40	0.08	1.51	0.41	0.018	0.014	-	-	0.48	0.48
Spoolarc U515	0.06	0.90	0.42	0.014	0.014	1.2	-	0.54	0.54