OK Flux 10.65

Agglomerated fluoride-basic flux for Submerged Arc Welding. Especially for combination with OK Autrod B3 SC. Designed for multi-run welding of creep resistant Cr-, Mo-alloyed steels when highest toughness values are required also after step cooling treatment. Very low level of impurities and thus exceptionally clean weld metal. X-bar max. 10 with the wire as above. Mainly for petrochemical and chemical industries, power generation, pressure vessels, etc. Suitable for narrow gap welding. Low-oxygen weld metal (approx. 300 ppm) and hydrogen contents lower than 5 ml/100 g, in BlockPac (moisture protection) maximum 4 ml/100g. Designed for single and multi wire procedures, welds equally well on DC and AC current. Mainly for multi layer welding of unlimited plate thickness.

Specifications	
Classifications	EN ISO 14174 : S A FB 1 65 AC H4 only BlockPac/moisture protection EN ISO 14174 : S A FB 1 65 AC H5
Approvals	CE : EN 13479 UKCA : EN 13479

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

Diffusible Hydrogen	max 5 ml/100g weld metal (Redried flux); max 4 ml/100g in BlockPac (moisture protection)
Slag Type	Fluoride-basic
Alloy Transfer	Slightly Silicon and no Manganese alloying
Density	nom: 1.0 kg/dm3
Basicity Index	nom: 2.4

Flux_Consumption_SAW		
Volts	**DC+ Weight**	**AC Weight**
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_SAW	Wire	Weld Metal
Wire	**AWS/EN**	**AWS - PWHT**
OK Autrod B3 SC	A5.23:EB3R 24598-A:S S CrMo2	A5.23: F9P2-EB3R-B3R

Approvals_SAW		
Wire	**CE**	**UKCA**
OK Autrod B3 SC	•	•

Typical Weld Metal Analysis %									
C	**Mn**	**Si**	**S**	**P**	**Ni**	**Cr**	**Mo**	**V**	**Al**
OK Autrod B3 SC AC, 480A, 29V, HI 1.9 kJ/mm									
0.10	0.84	0.17	0.005	0.005	0.04	2.38	0.96	0.005	0.01
OK Autrod B3 SC DC+, 480A, 29V, HI 1.9 kJ/mm									
0.09	0.93	0.23	0.006	0.005	0.04	2.30	0.96	0.005	0.01

Typical Weld Metal Analysis %									
Cu	**Nb**	**Ti**	**Sb**	**As**	**B**	**Sn**	**Mn+Si**	**Nb+Ti+V**	**P+Sn**
OK Autrod B3 SC AC, 480A, 29V, HI 1.9 kJ/mm									
0.05	0.002	0.002	0.001	0.002	0.0002	0.003	1.00	0.009	0.008
OK Autrod B3 SC DC+, 480A, 29V, HI 1.9 kJ/mm									

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Typical Weld Metal Analysis %									
Cu	**Nb**	**Ti**	**Sb**	**As**	**B**	**Sn**	**Mn+Si**	**Nb+Ti+V**	**P+Sn**
0.05	0.003	0.002	0.001	0.002	0.0002	0.003	1.15	0.009	0.008

Typical Weld Metal Analysis %		
PE	**J-Factor**	**X-bar**
OK Autrod B3 SC AC, 480A, 29V, HI 1.9 kJ/mm		
3.0	85	7
OK Autrod B3 SC DC+, 480A, 29V, HI 1.9 kJ/mm		
3.1	92	7

SAW_Typical_Mech_Properties					
Wire	**Testing Condition**	**Yield Strength**	**Tensile Strength**	**Elongation**	**Charpy V-Notch Result**
OK Autrod B3 SC	PWHT AWS DC+ (1 hour(s))	580 MPa	690 MPa	17 %	100 J @ -30 °C
OK Autrod B3 SC	PWHT AWS AC (32 hour(s))	460 MPa	590 MPa	29 %	170 J @ -30 °C
OK Autrod B3 SC	PWHT EN ISO AC (1 hour(s))	560 MPa	680 MPa	18 %	200 J @ 20 °C
OK Autrod B3 SC	PWHT AWS AC (4 hour(s))	540 MPa	650 MPa	25 %	170 J @ -30 °C
OK Autrod B3 SC	PWHT AWS DC+ (4 hour(s))	520 MPa	640 MPa	26 %	130 J @ -30 °C
OK Autrod B3 SC	PWHT AWS DC+ (32 hour(s))	440 MPa	570 MPa	28 %	100 J @ -30 °C
OK Autrod B3 SC	PWHT AWS AC (1 hour(s))	580 MPa	700 MPa	25 %	100 J @ -30 °C