

OK Flux 10.65

Agglomerated fluoride-basic flux-wire combination for Submerged Arc Welding. Designed for multi-run welding of creep resistant 2,25% Cr 1% Mo alloyed steels, SA-387 Grade 22, A335 Grade P22 or similar materials when highest toughness values are required also after step cooling treatment. Very low level of impurity elements providing a X-bar max. 10 for temper embrittlement resistant applications. Usually welding is followed by a PWHT. Suitable for refinery, petrochemical and chemical industries, power generation, pressure vessels, etc. Also for narrow gap welding. Low-oxygen weld metal (approx. 300 ppm) with hydrogen contents lower than 5 ml/100 g. 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

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

Diffusible Hydrogen	max 5 ml H/100g weld metal (Redried flux); max 4 ml H/100g in BlockPac (moisture protection)
Slag Type	Fluoride-basic
Alloy Transfer	Slightly Silicon and no Manganese alloying
Density	nom: 1.0 kg/dm ³
Basicity Index	nom: 2.4 %

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

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

Classifications

Wire	SFA/AWS - EN ISO	AWS - PWHT
OK Autrod B3 SC	A5.23:EB3R/ 24598-A:S S CrMo2	A5.23: F9P2-EB3R-B3R

Approvals

Combined with Wire	CE
OK Autrod B3 SC	•

Typical Weld Metal Analysis %

C	Mn	Si	S	P	Ni	Cr	Mo	V	Al
OK Autrod B3 SC									
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									
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		
3.1	92	7

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Typical Wire Composition %

C	Mn	Si	Mo
OK Autrod B3 SC			
0.11	0.65	0.15	0.95

Typical Mechanical Properties

Combined with Wire	Condition	Yield Strength	Tensile Strength	Elongation	Charpy V-Notch
OK Autrod B3 SC	PWHT AWS AC (4 hour(s))	540 MPa	650 MPa	25 %	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 (1 hour(s))	580 MPa	700 MPa	25 %	100 J @ -30 °C
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 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 (32 hour(s))	460 MPa	590 MPa	29 %	170 J @ -30 °C