OK Flux 10.74

Agglomerated aluminate-basic flux for Submerged Arc Welding especially for multi wire procedures in the production of longitudinal welded line pipes. Low weld bead profile at high welding speeds. With various wires suitable for all pipe steels. Due to the careful metallurgical design it produces a hard-spot free weld metal. Suitable for DC and AC welding of unlimited plate thickness.

Классификации	EN ISO 14174 : S A AB 1 67 AC H5
Одобрения	NAKS/HAKC RD 03-613-03

Одобрения на материалы выдаются с привязкой к заводу изготовителю. Подробную информацию можно получить в представительствах ESAB.

Диффузионный водород	max 5 ml H/100g weld metal (Redried flux)
Тип шлака	Aluminate-basic
Перенос легирующего элемента	Slightly Silicon and moderately Manganese alloying
Плотность	nom 1.2 kg/dm3
Показатель щелочности	nom 1.4
Размер гранулы	0.2-2.0 mm (9x65 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	SFA/AWS - EN ISO	EN - As Welded	AWS - As Welded	AWS - PWHT
OK Autrod 12.20	A5.17:EM12/ 14171-A:S2	14171-A: S 42 4 AB S2	A5.17: F7A6-EM12	A5.17: F6P6-EM12
OK Autrod 12.22	A5.17:EM12K/ 14171-A:S2Si	14171-A: S 42 4 AB S2Si	A5.23: F8TA4G-EM12K	A5.17: F6P6-EM12K
OK Autrod 12.24	A5.23:EA2/ 14171-A:S2Mo; 24598-A:S S Mo	14171-A: S 46 2 AB S2Mo	A5.23: F8A2-EA2-A4	A5.23: F7P0-EA2-A4
OK Autrod 12.34	A5.23:EA4/ 14171-A:S3Mo; 24598-A:S S MnMo	14171-A: S 50 2 AB S3Mo	A5.23: F9A2-EA4-A3	A5.23: F9P0-EA4-A3
OK Autrod 13.62	A5.23:EG/ 14171-A:SZ3TiB		A5.23: F8TA6-EG	
OK Autrod 13.64	A5.23:EA2TiB/ 14171- A:S2MoTiB		A5.23: F8TA6-EA2TiB	

Typical Mechanical Properties

Combined with Wire	Condition	Yield Strength	Tensile Strength	Elongation	Charpy V-Notch
OK Autrod 12.20	As Welded AWS DC+ hr	440 MPa	540 MPa	30 %	60 J @ -40°C 40 J @ -51°C 40 J @ -51°C
OK Autrod 12.20	As Welded EN AC hr	450 MPa	540 MPa	27 %	110 J @ -20°C 80 J @ -30°C 60 J @ -40°C
OK Autrod 12.22	As Welded AWS DC+ hr	440 MPa	540 MPa	30 %	55 J @ -40°C 35 J @ -51°C 35 J @ -51°C
OK Autrod 12.22	As Welded EN AC hr	460 MPa	550 MPa	26 %	110 J @ -20°C 80 J @ -30°C 60 J @ -40°C
OK Autrod 12.22	As Welded Two-run acc. to AWS; X70-plate, thickness 12mm; Heat input 2.2kJ/mm; 700A, 32V, 60cm/min DC+ hr	530 MPa	640 MPa	27 %	150 J @ 0°C 150 J @ 0°C 110 J @ -30°C 110 J @ -30°C 60 J @ -40°C

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Typical Mechanical Properties					
Combined with Wire	**Condition**	**Yield Strength**	**Tensile Strength**	**Elongation**	**Charpy V-Notch**
OK Autrod 12.24	As Welded AWS DC+ hr	520 MPa	590 MPa	24 %	100 J @ 0°C 100 J @ 0°C 65 J @ -20°C 65 J @ -20°C 50 J @ -29°C 50 J @ -29°C 30 J @ -40°C
OK Autrod 12.24	As Welded EN AC hr	550 MPa	620 MPa	23 %	120 J @ 0°C 80 J @ -20°C 50 J @ -40°C
OK Autrod 12.34	As Welded AWS DC+ hr	590 MPa	670 MPa	24 %	90 J @ 0°C 90 J @ 0°C 60 J @ -18°C 60 J @ -18°C 55 J @ -20°C 55 J @ -20°C 40 J @ -29°C 40 J @ -29°C
OK Autrod 12.34	As Welded EN AC hr	620 MPa	680 MPa	23 %	100 J @ 0°C 80 J @ -20°C 60 J @ -30°C
OK Autrod 13.62	As Welded (acc. AWS) Plate thickness 12mm; Heat input 2.2 kJ/mm; Side1: 600A/32V/53cm/min; Side2: 700A/32V/60cm/min.; DC+ hr	520 MPa	610 MPa	26 %	130 J @ 0°C 130 J @ 0°C 70 J @ -51°C 70 J @ -51°C
OK Autrod 13.64	As Welded (acc. to AWS) Plate thickness 12mm Heat input 2.2kJ/mm 700A, 32V, 60cm/min DC+ hr	550 MPa	650 MPa	26 %	70 J @ -51°C 70 J @ -51°C

Хим. состав наплавленного металла			
C	**Mn**	**Si**	**Mo**
OK Autrod 12.20 AC, 580A, 29V			
0.08	1.3	0.2	-
OK Autrod 12.20 DC+, 580A, 29V			
0.07	1.5	0.3	-
OK Autrod 12.22 AC, 580A, 29V			
0.08	1.3	0.4	-
OK Autrod 12.22 DC+, 580A, 29V			
0.07	1.5	0.5	-
OK Autrod 12.24 AC, 580A, 29V			
0.06	1.3	0.3	0.5
OK Autrod 12.24 DC+, 580A, 29V			
0.05	1.4	0.4	0.5
OK Autrod 12.34 AC, 580A, 29V			
0.09	1.5	0.3	0.5
OK Autrod 12.34 DC+, 580A, 29V			
0.08	1.6	0.4	0.5

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