

SAW Wires



OK AUTROD 12.08L

A copper coated mild steel wire for SAW

Classification AWS A5.17: EL8/EL12

DESCRIPTION

OK AUTROD 12.08L is a copper coated, mild steel solid wire for submerged arc welding of mild and medium tensile steels. It can be used in combination OK Flux 10.71L or OK Flux 10.81L or OK Flux 10.81LS, depending on the application and mechanical property requirements.

TYPICAL PROPERTIES

Wire Composition (Wt.%)	
C	0.06
Si	0.02
Mn	0.50

PACKING DATA

Size (mm)	Packing 25 Kg
2.00	✓
2.50	✓
3.15	✓
4.00	✓
5.00	✓

PACKING: The wire can be supplied in corrugated cardboard box weighing 25 Kg.

OK AUTROD 12.22L

A copper coated medium Mn alloyed solid wire for SAW

Classification AWS A5.17: EM12K

DESCRIPTION

OK AUTROD 12.22L is a copper coated, medium manganese alloyed killed solid wire for submerged arc welding medium and high strength steels. It can be used in combination with OK Flux 10.62 or OK Flux 10.71L or OK Flux 10.81LS, depending on the application and mechanical property requirements.

TYPICAL PROPERTIES

Wire Composition (Wt.%)	
C	0.10
Si	0.20
Mn	1.00

PACKING DATA

Size (mm)	Packing 25 Kg	Packing 250 Kg	Packing 375/450 Kg
1.20	×	✓	×
1.60	×	✓	×
2.00	✓	✓	✓
2.50	✓	✓	✓
3.15	✓	✓	✓
4.00	✓	✓	✓
5.00	✓	×	×

PACKING: The wire can be supplied in corrugated cardboard box weighing 25 Kg or Marathon Pac/Steel Bobbins weighing 250 Kg or Drums weighing 375/450 Kg.

ESAB SA13K

A copper coated medium Mn alloyed solid wire for SAW

Classification AWS A5.17: EM13K

DESCRIPTION

ESAB SA13K is a copper coated, medium manganese alloyed killed solid wire for submerged arc welding of medium and high tensile steels. It can be used in combination with OK Flux 10.62 or OK Flux 10.71L or OK Flux 10.81LS, depending on the application and mechanical property requirements.

TYPICAL PROPERTIES

Wire Composition (Wt.%)	
C	0.08
Si	0.50
Mn	1.10

PACKING DATA

Size (mm)	Packing 25 Kg	Packing 250 Kg
1.60	×	✓
3.15	✓	✓

PACKING: The wire can be supplied in corrugated cardboard box weighing 25 Kg or Marathon Pac/Steel Bobbins weighing 250 Kg.



ESAB SA10K

A copper coated high Mn alloyed solid wire for SAW

Classification AWS A5.17: EH10K

DESCRIPTION

ESAB SA10K is a copper coated, high manganese alloyed killed solid wire for submerged arc welding of medium and high strength steels. It can be used in combination with OK Flux 10.62L or OK Flux 10.71L, depending on the application and mechanical property requirements.

TYPICAL PROPERTIES

Wire Composition (Wt.%)	
C	0.10
Si	0.20
Mn	1.50

PACKING DATA

Size (mm)	Packing 25 Kg	Packing 450 Kg
2.50	✓	×
3.15	✓	×
4.00	✓	✓
5.00	✓	×

PACKING: The wire can be supplied in corrugated cardboard box weighing 25 Kg or Drums weighing 450 Kg.

OK AUTROD 12.40L

A copper coated high Mn alloyed semi killed solid wire for SAW

Classification AWS A5.17: EH14

DESCRIPTION

OK AUTROD 12.40L is a copper coated, high manganese alloyed semi-killed solid wire for submerged arc welding of medium and high tensile steels. It can be used in combination with OK Flux 10.62L or OK Flux 10.71L, depending on the application and mechanical property requirements.

TYPICAL PROPERTIES

Wire Composition (Wt.%)	
C	0.12
Si	0.05
Mn	1.85

PACKING DATA

Size (mm)	Packing 25 Kg	Packing 450 Kg
2.50	✓	×
3.15	✓	✓
4.00	✓	✓
5.00	✓	×

PACKING: The wire can be supplied in corrugated cardboard box weighing 25 Kg or Drums weighing 450 Kg.

OK AUTROD 12.24L

A copper coated Mo alloyed solid wire for SAW

Classification AWS A5.23: EA2

DESCRIPTION

OK AUTROD 12.24L is a copper coated, molybdenum alloyed solid wire for the submerged arc welding of non alloyed and low alloyed steels. It can be used in combination with OK Flux 10.62 or OK Flux 10.71L, depending on the application and mechanical property requirements.

TYPICAL PROPERTIES

Wire Composition (Wt.%)	
C	0.10
Si	0.15
Mn	1.10
Mo	0.50

PACKING DATA

Size (mm)	Packing 25 Kg
2.00	✓
3.15	✓
4.00	✓

PACKING: The wire can be supplied in corrugated cardboard box weighing 25 Kg.



OK AUTROD 12.33L

A copper coated Mo alloyed solid wire for SAW

Classification AWS A5.23: EA3K

DESCRIPTION

OK AUTROD 12.33L is a copper coated, molybdenum alloyed solid wire for the submerged arc welding of high tensile steels. It can be used in combination with OK Flux 10.62 or OK Flux 10.71L, depending on the application and mechanical property requirements.

TYPICAL PROPERTIES

Wire Composition (Wt.%)	
C	0.10
Si	0.60
Mn	1.75
Mo	0.45

PACKING DATA

Size (mm)	Packing 25 Kg
2.00	✓
3.15	✓
4.00	✓

PACKING: The wire can be supplied in corrugated cardboard box weighing 25 Kg.

OK AUTROD 13.10 SC

A low alloyed copper coated solid wire for SAW of 1.25Cr-0.5Mo type steels.

Classification AWS A5.23: EB2R

DESCRIPTION

OK AUTROD 13.10 SC is a low-alloyed, copper coated solid wire designed for the submerged arc welding of creep-resistant steels of the 1.25Cr-0.5Mo type. It is especially designed for step cooling applications. It can be used in combination with OK Flux 10.62.

TYPICAL PROPERTIES

Wire Composition (Wt.%)	
C	0.10
Si	0.15
Mn	0.70
Cr	1.20
Mo	0.50

PACKING DATA

Size (mm)	Packing 30 Kg	Packing 280/300 Kg	Packing 450/475 Kg
1.60	×	×	✓
2.00	✓	✓	✓
2.50	✓	×	×
3.20	✓	×	×
4.00	✓	✓	×

PACKING: The wire can be supplied in corrugated cardboard box weighing 30 Kg or bulk packs weighing 280/300/450/475 Kg.

OK AUTROD 13.20 SC

A low alloyed copper coated solid wire for SAW of 2.25Cr-1Mo type steels.

Classification AWS A5.23: EB3R

DESCRIPTION

OK AUTROD 13.20 SC is a low-alloyed, copper coated solid wire designed for the submerged arc welding of creep-resistant steels of the 2.25Cr-1Mo type. It is especially designed for step cooling applications. It can be used in combination with OK Flux 10.62.

TYPICAL PROPERTIES

Wire Composition (Wt.%)	
C	0.10
Si	0.15
Mn	0.60
Cr	2.30
Mo	1.00

PACKING DATA

Size (mm)	Packing 25 Kg
2.00	✓
2.50	✓
3.20	✓
4.00	✓

PACKING: The wire can be supplied in corrugated cardboard box weighing 30 Kg.



OK AUTROD 16.10

An extra low carbon stainless steel solid wire for SAW of 18Cr-8Ni type steels

Classification AWS A5.9: ER308L

DESCRIPTION

A corrosion resistant, chromium-nickel alloyed solid wire for welding austenitic stainless alloys of 18Cr-8Ni type. OK Autrod 16.10 has good general corrosion resistance. The alloy has a low carbon content which makes it particularly suitable to the applications, where there is a risk of intergranular corrosion. The alloy is widely used in the chemical and food-processing industries, as well as for pipes, tubes and boilers. OK AUTROD 16.10 can be used in combination with OK FLUX 10.92L.

TYPICAL PROPERTIES

Wire Composition (Wt.%)	
C	0.03
Si	0.45
Mn	1.80
Cr	20.70
Ni	9.80

PACKING DATA

Size (mm)	Packing 25 Kg
2.00	✓
2.50	✓
3.15	✓
4.00	✓

PACKING: The wire can be supplied in corrugated cardboard box weighing 25 Kg.

OK AUTROD 16.11

A Nb stabilized 20Cr-10Ni stainless steel solid wire for SAW

Classification AWS A5.9: ER347

DESCRIPTION

A corrosion-resistant, chromium-nickel alloyed solid wire for welding stabilized austenitic chromium-nickel alloys of 18Cr-8Ni type. OK AUTROD 16.11 has good general corrosion resistance. The alloy is stabilized with niobium to improve resistance to the intergranular corrosion of the weld metal. Due to the niobium content, this alloy is recommended for use at higher temperatures. OK AUTROD 16.11 can be used in combination with OK FLUX 10.92L.

TYPICAL PROPERTIES

Wire Composition (Wt.%)	
C	0.03
Si	0.40
Mn	1.30
Cr	19.50
Ni	9.50
Nb	0.40

PACKING DATA

Size (mm)	Packing 25 Kg
2.50	✓
3.15	✓
4.00	✓

PACKING: The wire can be supplied in corrugated cardboard box weighing 25 Kg.

OK AUTROD 16.13

An austenitic stainless steel solid wire for SAW of 25Cr-20Ni type steels

Classification AWS A5.9: ER310

DESCRIPTION

A corrosion-resistant, chromium-nickel alloyed solid wire for welding heat-resistant austenitic stainless steels of 25Cr-20Ni type. OK AUTROD 16.13 has good general oxidation resistance, especially at high temperatures, due to its high Cr content. The alloy is fully austenitic and is therefore sensitive to hot cracking. Common applications include industrial furnaces, boiler parts and heat exchangers. OK AUTROD 16.13 can be used in combination with OK FLUX 10.92L.

TYPICAL PROPERTIES

Wire Composition (Wt.%)	
C	0.10
Si	0.45
Mn	1.60
Cr	26.80
Ni	20.60

PACKING DATA

Size (mm)	Packing 25 Kg
2.50	✓
3.15	✓
4.00	✓

PACKING: The wire can be supplied in corrugated cardboard box weighing 25 Kg.



OK AUTROD 16.30

An extra low carbon stainless steel solid wire for SAW of 18Cr-12Ni-2.5Mo type steels

Classification AWS A5.9: ER316L

DESCRIPTION

A corrosion resistant, chromium-nickel-molybdenum alloyed solid wire for welding austenitic stainless alloys of the 18Cr-8Ni and 18Cr-12Ni-2.5Mo types. The alloy has very good resistance to corrosion in acid and chlorinated environments. The alloy has a low carbon content which makes it particularly suitable to the applications, where there is a risk of intergranular corrosion. The alloy is widely used in the chemical and food-processing industries, as well as in shipbuilding and various types of architectural structures. OK AUTROD 16.30 can be used in combination with OK FLUX 10.92L.

TYPICAL PROPERTIES

Wire Composition (Wt.%)	
C	0.03
Si	0.40
Mn	1.70
Cr	18.50
Ni	11.80
Mo	2.70

PACKING DATA

Size (mm)	Packing 25 Kg
2.50	✓
3.15	✓
4.00	✓

PACKING: The wire can be supplied in corrugated cardboard box weighing 25 Kg.

OK AUTROD 16.53

An extra low carbon 24Cr-13Ni stainless steel solid wire for SAW

Classification AWS A5.9: ER309L

DESCRIPTION

A corrosion resistant, chromium-nickel alloyed solid wire for joining stainless steels to non-alloy or low-alloy steels and for welding austenitic stainless alloys of the 24Cr-13Ni types. The alloy is also used for welding buffer layers on C-Mn steels. OK AUTROD 16.53 can be used in combination with OK FLUX 10.92L.

TYPICAL PROPERTIES

Wire Composition (Wt.%)	
C	0.03
Si	0.45
Mn	1.75
Cr	23.50
Ni	12.50

PACKING DATA

Size (mm)	Packing 25 Kg
2.50	✓
3.15	✓
4.00	✓

PACKING: The wire can be supplied in corrugated cardboard box weighing 25 Kg.

SAW FLUXES

OK FLUX 10.62

An agglomerated high basic non-alloying flux for SAW

Classification AWS A5.23: F8P2-EB2R-B2
F8P2-EB3R-B3

BASICITY INDEX: 3.2

DESCRIPTION

OK FLUX 10.62 is an agglomerated non-alloying, high-basic flux. It is especially suitable for the multi-run welding of thick materials using the single-wire and multiple-wire technique. It is designed for the multi-pass butt welding of mild, medium and high tensile steels, as well as low-alloyed steels, with impact toughness down to -40°/-60°C. As it is a flux of the high-basic type, it has a high current-carrying capacity on both AC and DC. To increase productivity with no loss of mechanical properties, OK FLUX 10.62 is best used together with iron powder addition. It is especially suitable for narrow gap welding, due to the good slag detachability and smooth side-wall blending. OK FLUX 10.62 can be successfully used in the applications, where good CTOD values are required. OK FLUX 10.62 yields low-oxygen weld metal (approx. 300 ppm) and produces low-hydrogen weld metal (lower than 5 ml/100 g).

TYPICAL WELD METAL PROPERTIES

OK FLUX 10.62/	C	Si	Mn	Cr	Mo	YS (N/mm ²)	UTS (N/mm ²)	Elongation (%)	CVN Impact (Joules)	Impact Temperature (°C)
OK AUTROD 13.10 SC	0.08	0.20	0.70	1.10	0.50	500	610	26	80	-30
OK AUTROD 13.20 SC	0.08	0.20	0.60	2.00	0.85	530	620	25	80	-30

PACKING: OK FLUX 10.62 is packed in paper bag containing 25 Kg.

OK FLUX 10.62L

An agglomerated high basic non-alloying flux for SAW

Classification AWS A5.17: F7A6/F7P8-EH10K
F7A6/F7P6-EH14

BASICITY INDEX: 3.2

DESCRIPTION

OK FLUX 10.62L is an agglomerated non-alloying, high-basic flux. It is especially suitable for the multi-run welding of thick materials using the single-wire and multiple-wire technique. It is designed for the multi-pass butt welding of mild, medium and high tensile steels, as well as low-alloyed steels, with impact toughness down to -40°/-60°C. As it is a flux of the high-basic type, it has a high current-carrying capacity on both AC and DC. It is especially suitable for narrow gap welding, due to the good slag detachability and smooth side-wall blending. OK FLUX 10.62 yields low-oxygen weld metal and produces low-hydrogen weld metal (lower than 5 ml/100 g).

TYPICAL WELD METAL PROPERTIES

OK FLUX 10.62L/	C	Si	Mn	YS (N/mm ²)	UTS (N/mm ²)	Elongation (%)	CVN Impact (Joules)	Impact Temperature (°C)
ESAB SA10K	0.08	0.20	1.25	470	540	27	45	-51
OK AUTROD 12.40L	0.09	0.10	1.45	490	550	30	40	-51

PACKING: OK FLUX 10.62L is packed in plastic lined paper bag containing 25 Kg.



OK FLUX 10.71L

An agglomerated slightly Si and Mn alloying basic flux for SAW

Classification AWS A5.17: F6A2-EL8/EL12
 F7A4/F6P5-EM12K
 F7A4/F7P6-EH10K
 F7A4/F7P5-EH14
 AWS A5.23: F8A2/F7P0-EA2-A4
 F9A0/F8P0-EA3K-A3

BASICITY INDEX: 1.5

TYPICAL WELD METAL PROPERTIES

OK FLUX 10.71L/	C	Si	Mn	Mo	YS (N/mm ²)	UTS (N/mm ²)	Elongation (%)	CVN Impact (Joules)	Impact Temperature (°C)
OK AUTROD 12.08L	0.06	0.20	0.90	-	390	450	25	70	-30
OK AUTROD 12.22L	0.08	0.40	1.35	-	450	540	30	35	-40
ESAB SA10K	0.07	0.50	1.65	-	490	580	26	30	-40
OK AUTROD 12.40L	0.07	0.40	1.80	-	500	590	27	40	-40
OK AUTROD 12.24L	0.08	0.40	1.25	0.50	550	610	24	50	-30
OK AUTROD 12.33L	0.07	0.75	2.00	0.40	630	700	25	35	-18

PACKING: OK FLUX 10.71L is packed in plastic lined paper bags containing 25 Kg.

OK FLUX 10.81L

An agglomerated Si and Mn alloying acidic flux for SAW

Classification AWS A5.17: F7AZ/F7PZ-EL8/EL12

BASICITY INDEX: 0.7

TYPICAL WELD METAL PROPERTIES

OK FLUX 10.81L/	C	Si	Mn	YS (N/mm ²)	UTS (N/mm ²)	Elongation (%)
OK AUTROD 12.08L	0.06	0.70	1.20	540	590	25

PACKING: OK FLUX 10.81L is packed in plastic lined paper bag containing 25 Kg.

DESCRIPTION

OK FLUX 10.71L is a basic agglomerated, slightly Si and Mn alloying flux for submerged arc welding. It is specially designed for fillet welding and single and multi pass butt welding of mild, medium and high tensile steels. The flux is of aluminate basic type and it has a very high current carrying capacity on both AC and DC with very good operating characteristics. OK FLUX 10.71L is also suited to narrow gap welding due to the excellent slag detachability and smooth side-wall blending.

DESCRIPTION

OK FLUX 10.81L is an acidic agglomerated Si and Mn-alloying flux for submerged arc welding. It provides exceptional welding characteristics with a slag system that allows higher welding speeds. It is specially designed for use in combination with OK AUTROD 12.08L.



OK FLUX 10.81LS

An agglomerated Si and Mn alloying acidic flux for SAW

Classification AWS A5.17: F7AZ/F7PZ-EL8/EL12
F7AZ/F7PZ-EM12K

BASICITY INDEX: 0.8

DESCRIPTION

OK FLUX 10.81LS is an acidic agglomerated Si and Mn-alloying flux for submerged arc welding. Most suitable for applications where the dilution of base metal is high, e.g. in fillet welding and butt welding of thin and medium thick plates with a limited number of passes. The superior welding properties associated with the acid slag system of OK FLUX 10.81LS permit high travel speeds in butt and fillet welding. It offers superior bead shape, slag removal and surface finish. It can be easily used over rust and primer without running the risk of porosity.

TYPICAL WELD METAL PROPERTIES

OK FLUX 10.81LS/	C	Si	Mn	YS (N/mm ²)	UTS (N/mm ²)	Elongation (%)
OK AUTROD 12.08L	0.07	0.70	1.10	530	580	26
OK AUTROD 12.22L	0.09	0.80	1.50	550	620	24

PACKING: OK FLUX 10.81LS is packed in plastic lined paper bag containing 25 Kg.

OK FLUX 10.92L

An agglomerated non-alloying basic flux for SAW of stainless steels

BASICITY INDEX: 2.1

DESCRIPTION

OK FLUX 10.92L is a basic non-alloying agglomerated flux for the submerged arc welding of stainless steels and high-alloyed Cr-Ni-Mo steels.

TYPICAL WELD METAL PROPERTIES

OK FLUX 10.92L/	C	Si	Mn	Cr	Ni	Mo	Nb	UTS (N/mm ²)	Elongation (%)	CVN Impact (Joules)	Impact Temperature (°C)
OK AUTROD 16.10	0.03	0.45	1.40	18.20	8.80			560	35	35	-196
OK AUTROD 16.11	0.03	0.50	1.10	18.00	8.80		0.40	610	32	50	-60
OK AUTROD 16.30	0.03	0.50	1.40	17.00	10.00	2.10		570	32	60	-60
OK AUTROD 16.53	0.03	0.45	1.45	21.00	11.00			580	35	50	-60

PACKING: OK FLUX 10.92L is packed in plastic lined paper bag containing 25 Kg.