Low Alloy Electrodes



OK 73.08

A Ni-Cu alloyed low hydrogen electrode for SMAW

Classification AWS A5.5: E8018-G

IS 1395: E55BG129Fe

DESCRIPTION

OK 73.08 is a Ni-Cu alloyed low hydrogen electrode, which deposits a weld metal with good corrosion resistance to sea water and flue gases. The weld metal has excellent mechanical properties. It is used for the welding of weather proof steel and ship's hull structural steel and shell plating of ice-breakers.

WELDING CURRENT: DC+, AC 90V

TYPICAL PROPERTIES

Weld Metal Composition (Wt.%)		All Weld Mechanical Properties		
C Si Mn	0.07 0.40 1.10	YS (N/mm²) UTS (N/mm²) Elongation (%)	460 550 30	
Ni Cu	0.45 0.40	Impact (CVN) @ -20°C (Joules)	130	

CURRENT RANGE & PACKING DATA

Size	Length	Current Range	No. of Electrodes in a	
(mm)	(mm)	(Amps)	Carton	Cardboard box
2.50	350	50-90	140	560
3.15	450	90-140	90	360
4.00	450	140-190	55	220
5.00	450	190-240	35	140

PACKING: Electrodes are packed in cartons and four of these cartons are shrink wrapped in a cardboard box. This electrode can also be made available in moisture resistant vacuum packed cartons, which can be used without redrying.

OK 73.68

A 2.5Ni alloyed hydrogen controlled electrode for SMAW

Classification AWS A5.5: E8018-C1

IS 1395: E55BC126Fe

DESCRIPTION

OK 73.68 is a 2.5Ni alloyed hydrogen controlled electrode, specially designed for welding low alloy steels used for high ductility, toughness and resistance to the embrittlement effects at sub-zero temperatures. The weld metal is suitable for impact requirements down to -60°C. The composition of the weld metal is designed in such a way that, good low temperature impact properties are obtained, even when welding vertically up. The alloy is also noted for its good corrosion resistance to sea water and sulphuric acid fumes.

APPROVALS: ABS

WELDING CURRENT: DC+, AC 70V

TYPICAL PROPERTIES

Weld Metal Composition (Wt.%)		All Weld Mechanical Properties		
C Si Mn Ni	0.08 0.35 0.90 2.30	YS (N/mm²) UTS (N/mm²) Elongation (%) Impact (CVN) @ -60°C (Joules)	490 570 30 95	

CURRENT RANGE & PACKING DATA

Size	Length	Current Range	No. of Electrodes in a	
(mm)	(mm)	(Amps)	Carton	Cardboard box
2.50	350	50-90	79	474
3.15	450	90-140	39	312
4.00	450	140-190	26	208
5.00	450	190-240	18	144

PACKING: Electrodes are packed in moisture resistant vacuum packed cartons, which can be used without redrying.



OK 74.46

A 0.5Mo alloyed low hydrogen electrode for SMAW

Classification AWS A5.5: E7018-A1

IS 1395: E49BA126Fe

DESCRIPTION

OK 74.46 is a 0.5Mo alloyed low hydrogen electrode for welding of creep resistant steels. The specially designed running characteristics make it suitable for welding joints in the inclined positions. OK 74.46 deposits a weld metal with good crack resistance and creep resistance up to a temperature of 525°C.

APPROVALS: IBR, NPC, PDIL & TOYO

WELDING CURRENT: DC+, AC 70V

TYPICAL PROPERTIES

Weld Metal	All Weld		
Composition (Wt.%)	Mechanical Properties		
C 0.06 Si 0.30 Mn 0.70 Mo 0.55	YS (N/mm²) UTS (N/mm²) Elongation (%) Impact (CVN) @ -20°C (Joules)	500 590 26	

CURRENT RANGE & PACKING DATA

Size	Length	Current Range	No. of Electrodes in a	
(mm)	(mm)	(Amps)	Carton	Cardboard box
2.50	350	50-95	135	540
3.15	450	75-130	95	380
4.00	450	90-175	60	240
5.00	450	110-290	35	140

PACKING: Electrodes are packed in cartons and four of these cartons are shrink wrapped in a cardboard box. This electrode can also be made available in moisture resistant vacuum packed cartons, which can be used without redrying.

OK 76.18

A 1.25Cr-0.5Mo alloyed low hydrogen electrode for SMAW of creep resistant steels

Classification AWS A5.5; E8018-B2

IS 1395: E55BB226Fe

DESCRIPTION

OK 76.18 is a basic coated, hydrogen controlled iron powder type electrode, for welding creep resistant steels of 1.25Cr-0.5Mo or similar type, used in high temperature components of power plants, boilers, oil-refineries, petrochem-ical plants etc. The slag system is designed in such a way that the electrode welds with a stable arc and minimum spatter. OK 76.18 welds without short-circuiting and deposits a weld metal resistant to both cracking and porosity. The weld metal is resistant to scaling up to 575°C.

APPROVALS: IBR, NPC, PDIL & TOYO

WELDING CURRENT: DC+, AC 70V

TYPICAL PROPERTIES

-	Weld Metal Composition (Wt.%)		All Weld Mechanical Properties		
C Si M Cı M	n 0.70 r 1.25	UTS	(N/mm²) S (N/mm²) ngation (%)	530 620 26	

CURRENT RANGE & PACKING DATA

Size	Length	Current Range	No. of Electrodes in a	
(mm)	(mm)	(Amps)	Carton	Cardboard box
2.50	350	70-100	130	520
3.15	450	90-150	95	380
4.00	450	140-180	60	240
5.00	450	180-240	35	140



OK 76.18M

A low carbon 1.25Cr-0.5Mo alloyed electrode for SMAW of creep resistant steels

Classification AWS A5.5: E7018-B2L

IS 1395: E49BB2L26Fe

DESCRIPTION

OK 76.18M is a low carbon, basic coated hydrogen controlled iron powder type electrode, used for welding creep resistant steels of 1.25Cr-0.5Mo or similar type, used in high temperature components of power plants, boilers, oil-refineries, petrochemical plants etc. The electrode welds with a stable arc, minimum amount of spatter and smooth & even weld bead. OK 76.18M deposits a weld metal resistant to both cracking and porosity. The weld metal is resistant to scaling up to 575°C.

WELDING CURRENT: DC+, AC 70V

TYPICAL PROPERTIES

Weld Metal Composition (Wt	All Wel	
C 0.03 Si 0.40 Mn 0.60 Cr 1.25 Mo 0.55	YS (N/mm²) UTS (N/mm²) Elongation (%)	450 540 24

CURRENT RANGE & PACKING DATA

Size	Length	Current Range	No. of Electrodes in a	
(mm)	(mm)	(Amps)	Carton	Cardboard box
2.50	350	70-110	130	520
3.15	450	90-150	95	380
4.00	450	130-190	60	240
5.00	450	150-260	35	140

PACKING: Electrodes are packed in cartons and four of these cartons are shrink wrapped in a cardboard box. This electrode can also be made available in moisture resistant vacuum packed cartons, which can be used without redrying.

OK 76.28

A 2.25Cr-1Mo alloyed low hydrogen electrode for SMAW of creep resistant steels

Classification AWS A5.5: E9018-B3

IS 1395: 63BB326Fe

DESCRIPTION

OK 76.28 is a basic coated hydrogen controlled iron powder type electrode, depositing a weld metal of the type 2.25Cr-1Mo, suitable for welding of similar Cr-Mo steels, used in high temperature components of power plants, boilers, oil-refineries, petrochemical plants etc. The slag system is designed in such a way that the electrode welds with a stable arc and minimum spatter. The weld metal provides scaling resistance up to 600°C.

APPROVALS: IBR, NPC, PDIL & TOYO

WELDING CURRENT: DC+, AC 70V

TYPICAL PROPERTIES

Weld Metal Composition (Wt.%)		All Weld Mechanical Properties		
C Si Mn Cr Mo	0.07 0.50 0.80 2.30 1.00	YS (N/mm²) UTS (N/mm²) Elongation (%)	620 710 21	

CURRENT RANGE & PACKING DATA

Size	Length	Current Range	No. of Electrodes in a	
(mm)	(mm)	(Amps)	Carton	Cardboard box
2.50	350	60-90	130	520
3.15	450	80-140	95	380
4.00	450	95-180	60	240
5.00	450	140-270	35	140



OK 76.28M

A low carbon 2.25Cr-1Mo alloyed electrode for SMAW of creep resistant steels

Classification AWS A5.5: E8018-B3L

DESCRIPTION

OK 76.28M is a low carbon basic coated hydrogen controlled iron powder type electrode, depositing a weld metal of the type 2.25Cr-1Mo, suitable for welding of similar Cr-Mo steels, used in high temperature components of power plants, boilers, oil-refineries, petrochemical plants etc. The electrode welds with a stable arc, minimum amount of spatter and smooth & even weld bead. The weld metal provides scaling resistance up to 600°C.

WELDING CURRENT: DC+, AC 70V

TYPICAL PROPERTIES

	l Metal tion (Wt.%)	All Weld Mechanical Properties		
C Si Mn Cr Mo	0.05 0.50 0.85 2.15 1.10	YS (N/mm²) UTS (N/mm²) Elongation (%)	610 700 23	

CURRENT RANGE & PACKING DATA

Size	Length	Current Range	No. of Electrodes in a	
(mm)	(mm)	(Amps)	Carton	Cardboard box
2.50	350	60-90	130	520
3.15	450	80-140	95	380
4.00	450	100-180	60	240

PACKING: Electrodes are packed in cartons and four of these cartons are shrink wrapped in a cardboard box. This electrode can also be made available in moisture resistant vacuum packed cartons, which can be used without redrying.

ESAB KV4

A 5Cr-0.5Mo alloyed low hydrogen electrode for SMAW of creep resistant steels

Classification AWS A5.5: E8018-B6

IS 1395: E55B-B620

DESCRIPTION

ESAB KV4 is a 5Cr-0.5Mo alloyed basic coated low hydrogen electrode, used for welding creep resistant, Cr-Mo bearing steels. It deposits a weld metal that is highly resistant to heat and corrosion. The electrode is designed to provide a stable arc, minimum spatter and superior weld bead. ESAB KV4 finds extensive use in the oil refineries, chemical and petrochemical Industries where it has to resist corrosion and hydrogen attack at high temperatures.

WELDING CURRENT: DC+

TYPICAL PROPERTIES

Weld Metal		All Weld		
Composition (Wt.%)		Mechanical Properties		
C Si Mr Cr Mo	5.00	YS (N/mm²) UTS (N/mm²) Elongation (%)	480 570 19	

CURRENT RANGE & PACKING DATA

Size	Length	Current Range	No. of Electrodes in a	
(mm)	(mm)	(Amps)	Carton	Cardboard box
2.50	350	50-90	135	540
3.15	350	90-140	95	380
4.00	350	140-190	60	240
5.00	450	190-240	45	180



ESAB KV7

A 9Cr-1Mo alloyed low hydrogen electrode for SMAW of creep resistant steels

Classification AWS A5.5: E8018-B8

IS 1395: E55BB820

DESCRIPTION

ESAB KV7 is basic coated low hydrogen electrode, for welding creep resistant steels of 9Cr-1Mo type. The weld metal is highly resistant to corrosion and hydrogen attack at high temperatures. The electrode runs with a quiet, stable arc and gives a minimum amount of spatter and superior weld appearance. It finds extensive use in the power plants, oil refineries, chemical and petrochemical industries.

WELDING CURRENT: DC+

TYPICAL PROPERTIES

Weld Metal		All Weld		
Composition (Wt.%)		Mechanical Properties		
C Si Mn Cr Ni	0.06 0.35 0.90 10.40 0.15 1.10	YS (N/mm²) UTS (N/mm²) Elongation (%)	630 780 21	

CURRENT RANGE & PACKING DATA

Size	Length	Current Range	No. of Electrodes in a	
(mm)	(mm)	(Amps)	Carton	Cardboard box
2.50	350	70-100	135	540
3.15	350	90-125	95	380
4.00	350	140-190	60	240
5.00	450	180-240	45	180

PACKING: Electrodes are packed in cartons and four of these cartons are shrink wrapped in a cardboard box. This electrode can also be made available in moisture resistant vacuum packed cartons, which can be used without redrying.

ESAB KV7M

A 9Cr-1Mo-V-N alloyed low hydrogen electrode for SMAW of creep resistant steels

Classification AWS A5.5: E9018-B9 (Nearest)

DESCRIPTION

ESAB KV7M is a basic coated low hydrogen electrode for welding of modified 9Cr-1Mo steels like P91/T91. The electrode is suitable for all positional welding in plates and tubes. ESAB KV7M finds extensive use in the power plants, oil refineries, chemical and petrochemical industries where it has to resist corrosion and hydrogen attack at high temperatures.

WELDING CURRENT: DC+

TYPICAL PROPERTIES

Weld Metal Composition (Wt.%)		All Weld Mechanical Properties		
C Si Mn Cr Ni Mo Nb N	0.10 0.20 1.00 9.00 0.10 1.10 0.04 0.04 0.20	YS (N/mm²) UTS (N/mm²) Elongation (%)	620 710 20	

CURRENT RANGE & PACKING DATA

Size	Length	Current Range	No. of Electrodes in a	
(mm)	(mm)	(Amps)	Carton	Cardboard box
2.50	350	60-80	135	540
3.15	350	90-130	95	380
4.00	350	95-195	60	240
5.00	450	140-270	35	140



ESAB 98

A Ni-Mo alloyed low hydrogen electrode for SMAW of high tensile strength steels

Classification AWS A5.5: E9018M

DESCRIPTION

ESAB 98 is a Ni-Mo alloyed hydrogen controlled iron powder type electrode, for welding high tensile strength steels. The electrode deposits, tough and crack resistant welds. The optimum addition of iron powder permits the use of higher currents and results in improved arc characteristics coupled with higher metal recovery. The operational characteristics are excellent in all positions. ESAB 98 finds extensive use in pressure vessels, piping, penstock, earth moving equipment, machinery parts, automobile parts, chemical plants etc.

APPROVAL: ABS

WELDING CURRENT: DC+. AC 70V

TYPICAL PROPERTIES

Weld Metal		All Weld		
Composition (Wt.%)		Mechanical Properties		
Si 0. Mn 1. Cr 0. Ni 1.	.05 .40 .00 .10 .60 .25	YS (N/mm²) UTS (N/mm²) Elongation (%) Impact (CVN) @ -51°C (Joules)	570 640 28 110	

CURRENT RANGE & PACKING DATA

Size	Length	Current Range	No. of Electrodes in	
(mm)	(mm)	(Amps)	Carton Ca	ardboard box
2.50	350	50-90	130	520
3.15	450	90-140	90	360
4.00	450	140-190	60	240
5.00	450	190-240	40	160

PACKING: Electrodes are packed in cartons and four of these cartons are shrink wrapped in a cardboard box. This electrode can also be made available in moisture resistant vacuum packed cartons, which can be used without redrying.

ESAB 118

A Cr-Ni-Mo alloyed low hydrogen electrode for SMAW of HSLA steels

Classification AWS A5.5: E11018M

DESCRIPTION

ESAB 118 is a Cr-Ni-Mo alloyed low hydrogen electrode, for welding high strength low alloy steels including quenched and tempered steels. The electrode gives a tough weld metal without the risk of temper brittleness. The all position electrode has excellent arc and current carrying characteristics, with an easily removable slag and excellent bead finish contributing to its immense welder appeal. Used for components of penstock, earth moving equipment and other heavy steel fabrications made of high tensile strength steels.

APPROVALS: ABS

WELDING CURRENT: DC+, AC 70V

TYPICAL PROPERTIES

Weld Metal Composition (Wt.%)		All Weld Mechanical Properties		
С	0.05	YS (N/mm ²)	690	
Si	0.40	UTS (N/mm²)	780	
Mn	1.40	Elongation (%)	25	
Cr	0.15	Impact (CVN)		
Ni	2.20	@ -51°C (Joules)	50	
Мо	0.40			

CURRENT RANGE & PACKING DATA

Size	Length	Current Range	No. of Electrodes in a	
(mm)	(mm)	(Amps)	Carton	Cardboard box
2.50	350	75-110	130	520
3.15	450	90-140	90	360
4.00	450	140-185	60	240
5.00	450	160-240	40	160