Welding electrodes OERLIKON Rutile electrodes Basic electrodes INOX Electrodes



#### Welding electrodes Oerlikon Rutile OVERCORD Z

C-Mn and Low Alloy steels. OVERCORD Z is a medium-thick rutile-cellulosic general purpose MMA electrode. Suitable for structural steelwork, workshop and maintenance welding in all positions.

Good gap bridging, easy striking and restriking. The slag is generally self-releasing, the weld beads are smooth and slighty concave, blending into the base plate without undercut.

Used for for welding in galvanised steels, there is a tolerance to impurities in the welding zone.

The OVERCORD Z has a softer arc than the OVERCORD.

Classification EN ISO 2560-A: E38 0 RC 1 1

AWS A5.1: E 6013

Approvals:

Number Size

ABS grade 2, BV grade 2, DB grade •, DNV grade 2, GL grade 2, LRS grade 2m, TÜV grade •.

Current

Material S(P)235 - S(P)355; GP240; GP280

510010	2.5x350	60-85 A	260	780	17,5	
510011	3.2x350	85-130 A	160	480	29,6	
510012	4.0x350	125-170 A	105	315	44.6	

C-Box

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# Welding electrodes Oerlikon Rutile OVERCORD

C-Mn and Low Alloy steel.

OVERCORD is a medium thick rutile-cellulosic coated MMA electrode for structural steelwork, workshop and maintenance applications, welding can be carried out with the same current setting in all positions.

Suitable for trade, use in structural engineering, vehicle and shipbuilding. Can be used on primer painted and slighty rusted parts, as there is a high tolerance to impurities. The strong and stable arc makes OVERCORD suitable for welding galvanised steel components.

Excellent all positional operating characteristics, especially vertically-down and the arc characteristics ensures reliable penetration. Welding in the vertical-down position produces flat, slighty concave weld beads.

Good gap bridging and easy striking and restriking.

Used on mains transformers. If a softer arc is required OVERCORD Z is recommended. Classification EN ISO 2560-A: E38 0 RC 1 1

AWS A5.1: E 6013

Approvals:

ABS grade 1, BV grade 1, DB grade •, DNV grade 1, GL grade 1, LRS grade 1m, TÜV grade •. Material S(P)235 - S(P)355; GP240; GP280

Number	Size	Current	С-Вох	Box	kg/1000	
510020	2.0x250	50-60 A	205	615	7,8	
510021	2.5x350	60-85 A	275	825	16,36	
510022	3.2x350	90-130 A	160	480	28,13	
510023	4.0x350	140-180 A	105	315	42,86	









## Welding electrodes Oerlikon Rutile OVERCORD R 10

## C-Mn and Low Alloy steel.

OVERCORD R10 is a rutile-cellulosic coated MMA electrode for welding in all positions. Used for a wide variety of applications: Efficiency 100%. Used for applications like: light and medium framework, railroad rolling stock, tanks, piping, tubular structure, various types of maintenance work etc. Good appearance of weld beads. Removal of slag similar to OVERCORD R12 but with a smoother arc. Classification EN ISO 2560-A: E38 0 RC 1 1 AWS A5.1: E 6013 Approvals:



ABS grade 2, BV grade 2, DB grade •, DNV grade 2, LRS grade 2m. Material S(P)235 - S(P)355; GP240; GP280

Number	Size	Current	С-Вох	Box	kg/1000	
510025	2.0x350	45-70 A	325	975	13,0	
510026	2.5x350	65-90 A	230	690	18,4	
510027	3.2x350	85-130 A	165	495	27,6	
510028	4.0x350	120-180 A	110	330	43,8	



## Welding electrodes Oerlikon Rutile OVERCORD R 12

C-Mn and Low Alloy steel.

OVERCORD R10 is a rutile-cellulosic coated MMA elctrode for welding in all positions. Easy to use and tolerant of dirty or poorly prepared plates. A general purpose electrode suitable for industry and metalworking trade. Working on poorly prepared pieces, pipes, tubes etc. Metal joinery, light to medium framework, sheet metalwork, maintenance etc. Easy to use even for fillet weld in vertical down position.

Flat or slightly convex beads and easy slag removal.

Classification EN ISO 2560-A: E38 0 RC 1 1

AWS A5.1: E 6013

Approvals:

ABS grade 2, BV grade 2, DB grade •, DNV grade 2, TÜV grade • Material S(P)235 - S(P)355; GP240; GP280

Number	Size	Current	C-Box	Box	kg/1000	
510030	1.6x300	35-50 A	231	693	7,1	
510031	2.0x350	45-65 A	160	480	11,3	
510032	2.5x350	60-95 A	260	780	16,8	
510033	3.2x350	85-125 A	160	480	27,6	
510034	3.2x450	95-125 A	160	480	35,0	
510035	4.0x350	120-180 A	105	315	43,0	
510036	4.0x450	140-190 A	105	315	55,4	





## Welding electrodes Oerlikon Rutile OVERCORD E

#### C-Mn and Low Alloy steel.

OVERCORD E is a rutile medium coated electrode, especially developed for welding mild steel for light metalic constructions and thin sheet. Suitable for trade, use in structural engineering, shipbuilding, vehicle and agricultural machines, made of steel with max. 0,25%C, for service up to 0°C. Excellent striking and restriking characteristics. Electrodes welds with a stabile arc and very spattering loss. The slag is self-releasing. Very good weldability on AC and DC- current. Classification EN ISO 2560-A: E42 0 RC 1 2 AWS A5.1: E 6013



Number	Size	Current	C-Box	Box	kg/1000	
510100	1.6x250	35-50 A	250	750	5,9	
510101	2.0x300	50-70 A	161	483	11,8	
510101B	2.5x300	60-90 A	237	711	16,03	
510102	2.5x350	60-90 A	230	690	19,57	
510103	3.2x350	110-135 A	141	423	31,91	
510103B	3.2x450	110-135 A	139	417	41,73	
510104	4.0x350	160-180 A	93	279	48,39	
510104B	4.0x450	160-180A	90	270	64,44	
510105	5.0x450	180-210 A	62	186	96,77	

Curre	ent con	dition	and we	Iding position	
AC; D	C-				
				14	
PA	PB	PC	PE	PF	

#### Welding electrodes Oerlikon Rutile OVERCORD R92

C-Mn and Low Alloy steel.

OVERCORD R 92 is a rutile-cellulosic coated MMA electrode for welding in all positions. Suitable for trade, use in structural steelwork, workshop and maintenance welding in all positions.

Excellent weldability, fusion and good bead aspect on vertical-up, vertical-down and overhead positions.

Used with all types of welding equipment even with low OCV.

Efficiency 100%.

Classification EN ISO 2560-A: E35 0 RC 1 1 AWS A5.1: E 6013 Approvals:

BV grade 2Y

Number	Size	Current	C-Box	Вох	kg/1000	
510040	1.6x300	35-50 A	231	693	7,1	
510041	2.0x350	45-65 A	160	480	11,3	
510042	2.5x350	70-90 A	230	690	18,2	
510043	3.2x350	90-125 A	165	495	29,1	
510044	3.2x450	90-125 A	165	495	38,0	
510045	4.0x350	135-185 A	110	330	42,8	
510046	4.0x450	130-175 A	110	330	55,0	

Curre	ent con	dition a	and we	lding p	osition	
AC; DO	D-					
		1 -	Î	4		
PA	PB	PC	PE	PF	PG	



#### Welding electrodes Oerlikon Rutile FINCORD

#### C-Mn and Low Alloy steel.

FINCORD is a thick rutile coated multi-purpose MMA electrode with outstanding welding characteristics.

Exceptionally easy operating makes it suitable for use by lower skilled welders.

Suitable for trade, use in structural engineering, shipbuilding, vehicle and agricultural machines.

Easy striking and restriking and used for touch-welding, the arc is stable with very low spatter and the slag is generally self-releasing. The weld beads are finely-rippled and clean, blending into the base plate without undercut.

Increased current-carrying capacity of larger diameters >3.2mm. Suitable for use with mains transformers.

For X-Ray quality welds in combination with the MAG filler layers, FINCORD DB is recommended.

Classification EN ISO 2560-A: E42 0 RR12

AWS A5.1:E 6013

Approvals:

ABS grade 2, BV grade 2Y, DB grade •, DNV grade 2, GL grade 2Y, LRS grade 2m, TÜV grade • Material S(P)235 - S(P)355; GP240; GP280



#### **Current condition and welding position**



Number	Size	Current	C-BOX	вох	KG/1000	
510050	1.6x250	30-60 A	220	660	5,91	
510051	2.0x250	50-70 A	170	510	8,82	
510052	2.0x350	50-75 A	170	510	12,94	
510053	2.5x250	65-90 A	210	630	14,29	
510054	2.5x350	65-90 A	210	630	20,00	
510055	3.2x350	100-140 A	125	375	34,40	
510056	3.2x450	100-140 A	118	354	48,31	
510057	4.0x350	140-210 A	78	234	55,13	
510058	4.0x450	150-195 A	78	234	71,79	
510059	5.0x450	170-240 A	50	150	104,00	
510060	6.0x450	240-320 A	33	99	151,52	

## Welding electrodes Oerlikon Rutile FINCORD DB

C-Mn and Low Alloy steel.

FINCORD DB is a thicker rutile coated MMA electrode for welding pipes and plates. FINCORD DB has a slightly thinner coating than FINCORD. Suitable for welds that are of X-Ray quality also in combination with MAG layers.

Designed for structural engineering, vehicle and railway applications. Easy weldability, easy striking and restriking and used extensively for tack-welding. Mostly self-releasing slag, leaving a smooth weld bead surface.

Classification EN ISO 2560-A: E42 0 RR12 AWS A5.1:E 6013 Approvals: DB grade •, TÜV grade • Material S(P)235 - S(P)355; GP240; GP280

Number	Size	Current	C-Box	Box	kg/1000
510065	2.5x350	60-100 A	225	675	19,40
510066	3.2x350	95-140 A	140	420	31,77
510067	4.0x450	130-190 A	90	270	64,30
510068	5.0x450	170-240 A	55	165	102,50





### Welding electrodes Oerlikon Rutile FINCORD M

C-Mn and Low Alloy steel.

FINCORD M is a rutile medium coating MMA electrode for a wide variety of mild steel applications.

It has exceptional overall operability and welder appeal, resulting in high quality weld deposits. Excellent in overhead position and for fillet welding in the horizontal-vertical position.

For trade, for all light constructional work, including pipework. Smooth metal transfer, low spatter and self releasing slag. Smooth weld bead appearance. Operates on low circuit voltage, good welding properties

om AC, DC- and DC+. Classification EN ISO 2560-A: E38 0 R12 AWS A5.1:E 6013

Approvals:

ABS grade 2Y, BV 2Y H15, DB grade •, DNV 2Y H15, LRS 2Ym H15

Number	Size	Current	C-Box	Box	kg/1000	
510070	2.0x300	50-70 A	161	483	11,80	
510071	2.5x300	45-85 A	240	720	14,58	
510072	2.5x350	55-90 A	240	720	17,08	
510073	3.2x350	80-130 A	140	420	30,71	
510074	4.0x450	120-180 A	85	255	60,00	
510075	5.0x450	160-240 A	50	150	102,00	
510076	6.0x450	220-290 A	35	105	145,71	



# Welding electrodes Oerlikon Basic SPEZIAL

C-Mn and Low Alloy steel.

SPEZIAL is a basic, double-coated multi-purpose MMA electrode. The composition of the double coating confers exceptionally good welding characteristics and a highly stable and directional arc. Very good gap bridging and idially suited for root passes and positional welding. The glassy slag is easily removed from the finely-rippled weld seams, the excellent welding characteristics and ISO-V toughness to -30°C. Structural steelwork, production and assembly jobs in industry and for pipeline construction for decades. Very good gap bridging and ideally suited for root passes. Material to be welded: S(P)235; S(P)355; GP240; GP280; L245; L260.

ISO-V toughness at -30°C.

Deposit free from porosity and good of X-Ray quality. Optimum AC weldability requires an OCV>65V. Very good gap bridging and ideally suited for root passes and positional welding. The glassy slag is easily removed from the finely-rippled weld.

Classification EN ISO 2560-A: E38 B 12 H10 AWS A5.1:E 7016-H8

Approvals:

ABS grade 3YH10, BV grade 3YH10, DB grade •, DNV-GL grade 3Y40H10, TÜV grade •, LRS 3YmH10, RMRS 3YHH Material S(P)235 - S(P)355; GP240; GP280; L245-L360

Number	Size	Current	C-Box	Box	kg/1000
510110	2.0x350	55-65 A	330	990	12,73
510111	2.5x350	55-95 A	200	600	19,50
510112	3.2x350	80-150 A	125	375	32,73
510112B	4.0x450	95-150 A	125	240	41,82
510113	4.0x450	120-190 A	80	150	65,00
510114	5.0x450	190-150 A	50	105	100,45







#### Welding electrodes Oerlikon Basic TENACITO 100

High-strength steels. TENACITO 100 is a low-alloyed basic coated MMA electrode with a very low hydrogen content. The elctrode produce a reliable, crack-freeand tough welded joint on steels with a yield strength <890 Mpa, retaining CVN toughness up to -40°C. For optimal condions a good balanced t8 /5; (heat input, interpass temperature, plate thickness) is recommended. The double coating in dia 2,5 & 3,2mm, confers a stable and concentrated arc, even at low currents, this character makes it very convenient for root passes and positional welding. Good gap bridging characteristics. The welds are of X-Ray quality. Classification: EN 18275-A: E 89 4 Mn2NiCrMo B 42 H5 AWS A5.5:E 12018-G H4 Approvals: TÜV grade • Material S890



Number	Size	Current	C-Box	Вох	kg/1000	
510080	2.5x350	65-95 A	110	330	20,70	
510081	3.2x350	90-135 A	60	180	34,40	
510082	4.0x450	140-185 A	35	105	69.60	



## Welding electrode Oerlikon Basic TENACITO 38R

C-Mn and Low Alloy steels.

TENACITO 38R is a low-hydrogen thick coated basic electrode that deposits weld metal containing C-1,2% Mn0,9% Ni. Electrode producing tough and crack-free welded joints. Weld deposit is of extremely high metallurgical purity and very low hydrocarbon content.

Owing to its double covering (up to 3,2mm) the elctrode features a stabile arc, making it well suited for positional welding.

CTOD-tested for offshore applications. Welds are of X-Ray quality. The electrode is suitable for positional welding of high integrity applications while conforming to NACE requirements. Suitable for welding with microalloyed steels in high tech applications found in the offshore/nuclear industries.

TENACITO 38R electrode features a stable and concentrated arc making it well-suited for positional welding with excellent mechanical properties in both as welded and stress relieved conditions.

Weld metal is of very low hydrogen content thus it provides high impact strength in service temperatures.

Classification: EN ISO 2560-A:E 46 6 1Ni B42 H5

AWS A5.5:E 7018-G H4

Approvals:

ABS grade 5Y460H5, BV grade 5Y, DB grade •,

DNV-GL grade 5YH5, TÜV grade •

Material: S(P)235 - S(P)460; GP240-GP280; L245-L450

Number	5120	Current		DUA	Ng/ 1000	
510085	2.5x350	65-95 A	110	330	18,7	
510086	3.2x350	90-140 A	60	180	34,70	
510087	4.0x450	140-185 A	35	105	68,2	
510088	5.0x450	180-250 A	20	60	111,3	





# Welding electrodes Oerlikon Basic TENACITO 65R

#### High-strength steels.

TENACITO 65R is a low-alloyed basic coated MMA electrode with a very low hydrogen content.

The electrode produce reliable, crack-free and tough welded joint on steels with a yield stength <550 MPa. The weldmetal is of an extremely high metallurgical purity, is ageing resistant, retaining good CVN toughness up to -60°C and CTOD tested.

For sour gas applications the nickel content is restricted to <1.0% max. On request TENACITO 65R can be supplied to special quality assurance requirements, including KTA 1408.2.

TENACITO 65R is used for HYSS, Offshore, Sour gas and Nuclear applications with a higher yield strength up to 550 Mpa en down to -60°C. The double coating in diameters 2.5 & 3.2mm confers a stable and concentrated arc even at low currents and makes it very convenient for root passes and positional welding.

Good gap bridging characteristics.

The welds are of X-Ray quality. Classification: EN ISO 18275-A:E 55 6Mn1NiMo B T 42 H5

AWS A5.5:E 9018-G H4 Approvals: ABS grade E9018G, DB grade •, TÜV grade • Materiaal A508 CI.2, A533 Gr. B CI. 1, CI.2, 13MnNiMo5-4, 17MnMoV6-4; L245-L555, S(P)355-S(P)555, 20MnMoNi5-5, 22NiMoCr3-7

Number	Size	Current	C-Box	Box	kg/1000	
510090	2.5x350	65-95 A	110	330	20,6	
510091	3.2x350	90-140 A	60	180	34,30	
510092	4.0x450	140-185 A	35	105	68,7	
510093	5.0x450	180-240 A	20	60	111,7	

#### **Welding electrodes Oerlikon STAINLESS SUPRANOX 308L** Stainless Steel and Heat resistant steels.

SUPRANOX 308L is a semi-basic MM electrode suitable for the welding of austenitic steels, Cr-Ni steels or cast steels containing 16-20% Cr and 8-12% Ni, i.e. AISI 304, AISI 304L. This electrode can also be used for welding of stainless steels of the same type whether stabilised or not for service temperatures up to +350°C. The weld deposit has a carbon content <0,04%. It is particulary suitable for food, nuclear, chemical industry, and associated applications.

This electrode offers excellent operability and is particularly suitable for downhand butt and fillet welding applications. The 2.5 & 3.2 mm diameter electrodes can be used for positional welding . Combines a stable spray arc transfer resulting in excellent weld bead shape and appearance with a slight concave profile in horizontal vertical fillet welds.

There is a very little spatter and in combination with the self-releasing slag, post welding cleaning time is maintained to a minimum.

Under wet corrosive conditions suitable for operating temperatures up to +350°C, resistant to scaling up to +800°C.

Suitable for use with either AC (minimum OCV 50V) or DC positive. Easy arc striking and restriking. Efficiency 100%. Classification: EN ISO 358-A:E 19 9 L R 12; AWS A5.4:E 308L-17 Approvals: ABS grade E308L-16, BV grade UP, DB grade •

DNV grade 308L, GL grade 4550, TÜV grade •

Material 1.403 (X4CrNi18-10); 1.4303 (X4CrNi 18-12); 1.4306 (X2CrNi19-11) 1.4311 (X2CrNiN18-10); 1.4319 (X5CrNi17-8); 1.4541 (X6CrNiTi18-10) 1.4552 (GX5CrNiNb19-10) AISI304-304L-303-302-301; ASTM A312 Grad TP308, TP308L; ASTM A351 Grad CF3, CF3A

Number	Size	Current	C-Box	Box	kg/1000	
510170	2.0x300	30-60 A	340	1020	11,2	
510171	2.5x300	55-80 A	190	570	18,70	
510172	3.2x350	70-110 A	120	360	35	
510173	4.0x350	120-140 A	80	240	52,8	
510174	5.0x350	145-180 A	50	150	81,6	

Current condition and welding position







#### Welding electrodes Oerlikon STAINLESS SUPRANOX 309L

Stainless Steel and Heat resistant steels.

SUPRANOX 309L is a semi-basic MMA electrode depositing a low C-22/24% Cr-12/14% Ni weld metal with approx. 12% delta-ferrite promoting high resistance to hot cracking.

This electrode has three main applications:

Buffer layers and claddings on unalloyed and low-alloy steels which are already corrosion resistant in the first layer.

Dissimilar joints (austenitic steels to ferritic steels) with operating temperatures up to +300°C. In case of higher temperatures use SUPRANEL 182.

Welding fo stainless steels of similar composition.

This electrode offers excellent operability and is particulary suitable for downhand butt and fillet welding applications.

The 2.5 & 3.2 mm diameter electrodes can be used for positional welding. Exhibits a stable spray arc transfer resulting in excellent weld bead shape and appearance with a slight concave profile in horizontal vertical fillet wleds. There is a very little spatter and in combination with a selfreleasing slag, post welding cleaning time is maintained to a minimum. Easy striking and restriking. Suitable for use with either AC (minimum OCV 50V) or DC positive. Efficiency 100%.

Classification: EN ISO 3581-A:E 23 12 L R 12; AWS A5.4:E 309L-17 Approvals: ABS grade E309L-16, BV grade UP, DB grade • DNV grade 309L, GL grade 4332, LRS grade SS/CMn, TÜV grade • Material ASTM A249, A312, A409, A814 Grad TP309, TP309S; AISI 309-309S.

Number	Size	Current	С-Вох	Box	kg/1000	
510180	2.5x300	55-80 A	190	570	19,3	
510181	3.2x350	70-110 A	120	360	36,20	
510182	4.0x350	120-140 A	80	240	54,1	
510183	5.0x350	145-180A	50	150	86,6	

#### Welding electrodes Oerlikon STAINLESS SUPRANOX 316L

Stainless Steel and Heat resistant steels.

SUPRANOX 316L is a semi-basic MMA electrode suitable for the welding of austenitic steels Cr-Ni steels or cast steels containing 16-20%Cr, 10-14%Ni, and 2-3%Mo i.e. AISI 316 and 316L, having an extra low carbon content. This electrode can also be used for welding of stainless steels of the same type whether stabilised or not for service temperatures up to +400°C. It is particulary suitable for Offshore, Chemical industry, Hydro power plants and general construction applications.

This electrode offers excellent operability and is particulary suitable for downhand butt and fillet welding applications.

The 2.5 & 3.2 mm diameter electrodes can be used for positional welding. Exhibits a stable spray arc transfer resulting in excellent weld bead shape and appearance with a slight concave profile in horizontal vertical fillet welds. There is very little spatter and in combination with the self-releasing slag, post weld cleaning time is maintained to a minumum. Under wet corrosive conditions suitable for operating temperatures up to +400°C, resistant to scaling up to +800°C. Excellent resistant to MARINE corrosion.

Easy arc striking and restriking. Suitable for use with either AC (minimum OCV 50V) or DC positive. Efficiency 100%.

Classification: EN ISO 3581-A:E 19 12 3 L R 12

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AWS A5.4:E 316L-17 en AS/NZS 1553:3:E E316L-17

Approvals: ABS grade E316L-16, BV grade UP, DB grade •

DNV grade 316L, GL grade 4571, LRS grade 01, DD grade 316L TÜV grade • Material AISI316-316L-316LN, ASTM A312 Grad TP316, TP316L. 1.440 (X4CrNiMo17-12-2), (GX2CrNiMoN18-10); 1.4404 (X4CrNiMo17-12-2) 1.4406 (X2CrNiMo17-11-2); 1.4408 (GX5CrNiMo19-11); 1.4429 (X2CrNiMo 17-13-3); 1.4436 (X4CrNiMo17-13-3), 1.4571 (X6CrNiMoTi17-12-2), 1.4580 (X6CrNiMoNb17-12-2); 1.4581 (GX5CrNiMoNb19-11) 1.4583

(X10CrNiMoNb18-12); ASTM A351 Grad CF3M, CF3MA.

Number	512e	Current	C-BOX	DUX	Kg/1000	
514316	1.6x300	24-40 A	250	750	7,1	
514320	2.0x300	30-60 A	310	930	11,50	
514321	2.5x300	55-80 A	190	570	18,4	
514322	3.2x350	70-110 A	120	360	35,7	
514323	4.0x350	120-140 A	80	240	52,3	

# Current condition and welding position

AC; DC+





Curre	ent conc	dition a	nd weld	ling pos	sition	
AC; DC	C+					
Ū				Î	1	
PA	PB	PC	PD	PE	PF	



514324	5.0x350	145-180A	50	150	84,4
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#### Welding electrodes Oerlikon HIGH ALLOY CLEARINOX E 308L

Stainless Steel and Heat resistant steels.

CLEARINOX E 308L is a rutile double coated MMA electrode for welding similar austenitic stainless steel. The reduced welding fume (up to -40%) and the hexavalent Cr content (up to -60%)) of the fume contribute to an improved working environment in your workshop, for all workers.

Advantageous in confined spaces and with limited fume extraction systems. Excellent striking and re-striking. Arc transfer is more stable and concentrated thanks to the OERLIKON double coated technology, with good wetting of joint faces, finely-rippled bead surface, easy slag removal.

Applications include wet-corrosion conditions for operating temperatures <350°C non-scaling <800°C.

Classification: EN ISO 3581-A:E 19 9 L R 22

AWS A5.4:E 308L-17

Approvals: ABS grade E308L-17, BV grade 308L, DB grade •,

DNV-GL grade VL 308 L, TÜV grade •

Material AISI 304-304L-302

1.4541 (X6CrNiTi18-10); 1.4301 (X4CrNi18-10); 1.4311 (X2CrNiN18-10).

Number	5120	Current	C-DUX	DUX	Ng/1000	
510200	2.5x300	75-80 A	90	270	18,7	
510201	3.2x350	110-115 A	55	165	35,00	
510202	4.0x350	150-160 A	40	120	52,8	
510203	5.0x350	200-210 A	20	60	81,6	

 Current condition and welding position

 DC+

 PA
 PB
 PC
 PD
 PE
 PF

#### Welding electrodes Oerlikon HIGH ALLOY CLEARINOX E 309L

Stainless Steel and Heat resistant steels.

CLEARINOX E 309L is a rutile double coated MMA electrode for joining austenitic steels to ferrit steels, dissimilar steels and for stainless cladding. The reduced welding fume (up to -40%) and the lower chromium VI content (up to -60%)) of the fume contribute to an improved working environment

in your workshop, for all workers. Advantageous in confined spaces and with limited fume extraction systems. Cladding on unalloyed and low alloyed steels is already corrosion resistant in the first layer. Excellent striking and re-striking.

Arc transfer is more stable and concentrated thanks to the OERLIKON double coated technology, with good wetting of the joint faces, finely-rippled bead surface and easy slag removal. Classification EN ISO 3581-A:E 23 12 L R 22 AWS A5.4:E 309L-17 Approvals: ABS grade E309L-17, BV grade 309L, DB grade •,

DNV-GL grade VL 309 L, TÜV grade •

Material AISI 309-309S

Ferrite-Austenite hetrogeneous joints, cladding.

Number	Size	Current	C-Box	Box	kg/1000
510205	2.5x300	75-80 A	90	270	19,6
510206	3.2x350	110-120 A	55	165	36,15
510207	4.0x350	150-170 A	40	120	54,1
510208	5.0x350	200-220 A	20	60	86,6







# 51-01.8

## Welding electrodes Oerlikon HIGH ALLOY CLEARINOX E 316L

Stainless Steel and Heat resistant steels.

CLEARINOX E 316L is a rutile double coated MMA electrode for welding similar austenitic Cr-Mo-Ni steels.

The reduced fumes (up to -40%) and the lower hexavalent Cr content (up to -60%) vof the fume contribute to an improved working environment in your workshop, for all your workers.

Advantageous in confined spaces and with limited fume extraction systems. Excellent striking and re-striking. Arc transfer is more stable and concentrated thanks to the OERLIKON double coated technology, with good wetting of the joint faces, finelly rippled bead surface, easy slag removal. Under wet corrosion conditions suitable for operating temperatures up to <400°C.

Classification EN ISO 3581-A:E 19 12 3 L R 22

AWS A5.4:E 316L-17

Approvals: ABS grade E316L-17, BV grade 316L, DB grade •,

DNV-GL grade VL 316 L, TÜV grade •

Material 1.4571 (X6CrNiMoTi17-12-2); 1.4583 (X10CrNiMoNb18-12) 1.4401 (X4CrNiMo17-12-2); 1.4435 (X2CrNiMo18-14-3) AISI 316L

Size Current C-Box kg/1000 Number Box 510210 2.5x300 75-80 A 90 270 19,6 55 510211 3.2x350 110-120 A 36,15 165 510212 4.0x350 150-170 A 40 120 54,1 510213 5.0x350 200-220 A 20 60 86,6



Many other OERLIKON welding electrodes on request available.



51-01.9