



## STAINLESS STEEL ELECTRODES

### PRENOX-1A/ WELINOX 308

#### CHARACTERISTICS :

It is a low carbon, medium heavy coated, rutile based, 18/8 austenitic stainless steel electrode. Controlled ferrite content of 3-7% gives maximum resistance to cracking, corrosion and at high temperatures upto 800 °C. The weld metal has excellent creep strength and is of radiographic quality. The electrode operates equally well on AC or DC (+) current. The electrode is noted for arc stability, low spatter loss and easy striking/restriking properties.

#### APPLICATIONS :

Welding of 18/8 stainless steels such as AISI 301, 302, 304 and 308. Welding of Hospital apparatus, Aircraft frames, apparatus for Nitric acid, Acetic acid, Milk and Soap industries etc.

#### WELDMETAL COMPOSITION :

Element	Percent
C	0.08 Max
Si	0.60-0.95
Mn	0.50-2.50
Cr	18-21
Ni	9-11
Ferrite	3-7

#### CLASSIFICATION :

AWS A5.4	:	E-308-16
DIN 8556	:	E 19 9 R 26

#### CURRENT RANGE & PACKING DATA:

Size MM DxL	Current Range (Amps) AC or DC (+)	Pieces per Packet	Pieces per Carton
2.00x300	40-50	150	900
2.50x350	50-75	100	600
3.15x350	90-110	60	360
4.00x350	110-140	40	240
5.00x350	140-170	30	180



### PRENOX-1B

#### CHARACTERISTICS :

It is a low carbon, medium heavy coated, rutile based, 18/8 Cb stabilized stainless steel electrode. The weld metal is resistant to cracking, corrosion and at high temperatures upto 800 °C.. The weld metal has excellent creep strength and is of radiographic quality. Niobium prevents intergranular corrosion due to carbide precipitation in the temperature range 450-850°C..

#### APPLICATIONS :

For joining and welding of Corrosion resistant stainless steels such as AISI grade 321 and 347 in industries where material must withstand corrosion due to Hot exhaust gases and at high temperatures.

#### WELDMETAL COMPOSITION :

Element	Percent
C	0.08 Max
Si	0.60-0.95
Mn	0.50-2.50
Cr	18-21
Ni	9-11
Cb	0.-1.0
Ferrite	6-9

#### CLASSIFICATION :

AWS A5.4	:	E-347-16
DIN 8556	:	E 19 9 Nb R 26

#### CURRENT RANGE & PACKING DATA:

Size MM DxL	Current Range (Amps) AC or DC (+)	Pieces per Packet	Pieces per Carton
2.00x300	40-50	150	900
2.50x350	50-75	100	600
3.15x350	90-110	60	360
4.00x350	110-140	40	240
5.00x350	140-170	30	180





## STAINLESS STEEL ELECTRODES

### PRENOX-1C/ WELINOX 308L

#### CHARACTERISTICS :

It is an extra low carbon, medium heavy coated, rutile based, 18/8 stainless steel electrode designed to weld in all positions. Ferrite content is maintained between 3-7 % for maximum resistance to cracking of welds. The weld metal has excellent creep strength and is of radiographic quality. The electrode has easy operating characteristics on AC as well as DC (+). Easy striking and restriking, soft and stable arc, low spatter and easy slag detachability are the main features.

#### APPLICATIONS :

Welding of Corrosion resistant stainless steels such as AISI 301, 302, 304L and 308L. Welding of Household utensils, foodstuff and Chemical process industries, Nuclear plants, Dairies, Distilleries etc.

#### WELDMETAL COMPOSITION :

Element	Percent
C	0.04 Max
Si	0.60-0.95
Mn	0.50-2.50
Cr	18-21
Ni	9-11
Ferrite	3-7

#### CLASSIFICATION :

AWS A5.4	:	E-308L-16
DIN 8556	:	E 19 9 LR 26

#### CURRENT RANGE & PACKING DATA:

Size MM DxL	Current Range (Amps) AC or DC (+)	Pieces per Packet	Pieces per Carton
2.00x300	40-50	150	900
2.50x350	50-75	100	600
3.15x350	90-110	60	360
4.00x350	110-140	40	240
5.00x350	140-170	30	180



### PRENOX-2A/ WELINOX 316

#### CHARACTERISTICS :

It is a low carbon, medium heavy coated, rutile based electrode for welding in all positions 18/8/Mo austenitic stainless steels. The presence of Molybdenum in weld metal provides excellent corrosion and creep resistance properties at elevated temperatures upto 850 °C.. Ferrite content is controlled between 4-8% which gives maximum resistance to cracking and corrosion. The electrode produces crack free, radiographic quality welds. It operates equally well on AC and DC (+). Easy striking and restriking, soft and stable arc, low spatter, easy slag detachability are the main characteristics.

#### APPLICATIONS :

Welding of stainless steels such as AISI 316, 317, Clad steel of the same grade, Ferritic and Mo alloyed Cr. Steels. Used in Fabrication of tanks and vessels, Acid resisting coils, Pipe fitting etc. in Paper & pulp, Chemicals, Paint & Dye industries. Also used for welding of stainless steels such as AISI 201, 202, 301, 302, 410, 414, 420.

#### WELDMETAL COMPOSITION :

Element	Percent
C	0.07 Max
Si	0.0-0.5
Mn	1.0-2.0
Cr	18-22
Ni	10-13
Mo	2-3
Ferrite	4-8

#### CLASSIFICATION :

AWS A5.4	:	E-316-16
DIN 8556	:	E 19 12 3 R 26

#### CURRENT RANGE & PACKING DATA:

Size MM DxL	Current Range (Amps) AC or DC (+)	Pieces per Packet	Pieces per Carton
2.00x300	40-50	150	900
2.50x350	50-75	100	600
3.15x350	90-110	60	360
4.00x350	110-140	40	240
5.00x350	140-170	30	180



## STAINLESS STEEL ELECTRODES

### PRENOX-2B

#### CHARACTERISTICS :

PRENOX-2B is a low carbon, rutile based, medium heavy coated, all position austenitic type electrode with controlled ferrite content of 4-8% for maximum resistance to cracking due to stress corrosion and inter crystalline corrosion. The weld metal has excellent creep strength upto 850°C. and is of radiographic quality.

#### APPLICATIONS :

For welding and surfacing of 18/8/Mo Niobium or Titanium stabilized steels such as AISI 317 & 318 in Pickling plants, Bleaching equipments, Dyeing equipments, Heat resistant castings etc.

#### WELDMETAL COMPOSITION :

Element	Percent
C	0.08 Max
Si	0.2-0.5
Mn	1.0-2.0
Cr	17-20
Ni	9-12
Mo	2.0-2.5
Cb	0.6-1.2
Ferrite	4-8

#### CLASSIFICATION :

AWS A5.4 : E-318-16  
DIN 8556 : E 19 12 3 Nb R 26

#### CURRENT RANGE & PACKING DATA:

Size MM DxL	Current Range (Amps) AC or DC (+)	Pieces per Packet	Pieces per Carton
2.00x300	40-50	150	900
2.50x350	50-75	100	600
3.15x350	90-110	60	360
4.00x350	110-140	40	240
5.00x350	140-170	30	180



### PRENOX-2C

#### CHARACTERISTICS :

PRENOX-2C is an extra low carbon, medium heavy coated, rutile based, all position austenitic type electrode for welding of low carbon 18/8/3 Cr/Ni/Mo stainless steels. Controlled ferrite content of 4-8% gives maximum resistance to stress corrosion cracking, hot cracking and chemical corrosion at high temperatures upto 850°C. The Mo content makes it resistant to corrosive agents of reducing nature. The weld metal has excellent creep strength and is of radiographic quality.

#### APPLICATIONS :

For welding AISI 316 ELC or 317 ELC. Also suitable for welding AISI 316, 316L, 317L class fabrication in Chemical plants, paint & Dye industries.

#### WELDMETAL COMPOSITION :

Element	Percent
C	0.04 Max
Si	0.2-0.5
Mn	1.0-2.0
Cr	18-22
Ni	10-13
Mo	1.50-2.50
Ferrite	4-8

#### CLASSIFICATION :

AWS A5.4 : E-316L-16  
DIN 8556 : E 19 12 3 LR 26

#### CURRENT RANGE & PACKING DATA:

Size MM DxL	Current Range (Amps) AC or DC (+)	Pieces per Packet	Pieces per Carton
2.00x300	40-50	150	900
2.50x350	50-75	100	600
3.15x350	90-110	60	360
4.00x350	110-140	40	240
5.00x350	140-170	30	180





# STAINLESS STEEL ELECTRODES

## PRENOX-D2/ WELINOX 309

### CHARACTERISTICS :

It is a heavy coated, rutile based electrode suitable to weld in all positions 25/12 Cr/Ni stainless steels. The weld deposit offers excellent resistance to chemical corrosion and can stand upto 1100 °C. in continuous service. The electrode operates equally well on AC as well as DC (+). Easy striking and restriking, low spatter, easily detachable slag, stable arc and radiographic quality welds are the main characteristics.

### APPLICATIONS :

For welding AISI 309 Stainless steel with 25 Cr/12Ni, Straight chrome steels for joining stainless steel to mild steel, Low alloy steel, Carbon steel, for stainless steel Castings and for overlays on Mild Steel to improve its wear and corrosion resistance.

### WELDMETAL COMPOSITION :

Element	Percent
C	0.10 Max
Si	0.2-0.5
Mn	1.0-2.0
Cr	25-28
Ni	11-14

### CLASSIFICATION :

AWS A5.4	:	E-309-16
DIN 8556	:	E 22 12 R 26

### CURRENT RANGE & PACKING DATA:

Size MM DxL	Current Range (Amps) AC or DC (+)	Pieces per Packet	Pieces per Carton
2.00x300	40-50	150	900
2.50x350	50-75	100	600
3.15x350	90-110	60	360
4.00x350	110-140	40	240
5.00x350	140-170	30	180



## PRENOX-CW/ WELINOX 310

### CHARACTERISTICS :

It is a heavy coated, rutile based electrode for welding of 25/20 Cr/Ni stainless steels. The electrode is designed for high temperature applications where greater stability, corrosion resistance and oxidation resistance are required. The weld deposit can stand upto 1150°C. in continuous service. The electrode gives smooth arc, least spatter, easily removable slag and radiographic quality welds.

### APPLICATIONS :

For welding AISI 309, 310, Cladding side of stainless clad steels, Straight chrome steels, Gas turbine combustion chamber parts, High temperature furnace parts, Hydrogenation plants. For joining Dissimilar steels, Mild Steel to Stainless Steel, Hardenable steels such as Automobile springs, broken dies and tools etc.

### WELDMETAL COMPOSITION :

Element	Percent
C	0.10 Max
Si	0.2-0.5
Mn	1.0-2.0
Cr	25-28
Ni	20-22

### CLASSIFICATION :

AWS A5.4	:	E-310-16
DIN 8556	:	E 25 20 R 26

### CURRENT RANGE & PACKING DATA:

Size MM DxL	Current Range (Amps) AC or DC (+)	Pieces per Packet	Pieces per Carton
2.00x300	40-50	150	900
2.50x350	50-75	100	600
3.15x350	90-110	60	360
4.00x350	110-140	40	240
5.00x350	140-170	30	180





## STAINLESS STEEL ELECTRODES

### PRENOX-D2 Mo

#### CHARACTERISTICS :

PRENOX-D2 Mo is a rutile based heavy coated electrode giving 25/13/2.5 Mo weld deposits. Addition of Mo improves Tensile strength and Corrosion resistance. Deposits Radiographic quality weld metal. Recommended for joining SS containing Mo to Carbon steel, for welding 309 Mo steel and for welding difficult to weld steels.

#### WELDMETAL COMPOSITION :

Element	Percent
C	0.12 Max
Mn	0.50-2.50
Si	0.90 Max
S	0.030 Max
P	0.040 Max
Cr	22.0-25.0
Ni	12.0-14.0
Mo	2.0-3.0

#### CLASSIFICATION :

AWS	:	E309Mo-16
IS	:	E23.12.2R26

#### CURRENT RANGE & PACKING DATA :

Size MM DxL	Current Range (Amps) AC or DC (+)	Pieces per Packet	Pieces per Carton
2.00x300	40-50	150	900
2.50x350	55-70	100	600
3.15x350	80-110	60	360
4.00x350	110-140	40	240
5.00x350	150-170	30	180



### PRENOX-D2 Cb

#### CHARACTERISTICS :

A low carbon medium heavy coated, rutile based electrode suitable for welding in all positions and giving 25/12 Columbium stabilised deposit. The weld deposit offers excellent resistance to chemical corrosion and can stand upto 1100 °C. in continuous service. The electrode operates equally well on AC as well as DC (+). It gives soft and stable arc, low spatter, easily detachable slag and radiographic quality welds.

#### APPLICATIONS :

For welding 25/12 Columbium stabilised steels, straight Chrome steels and for joining stainless steels to lower alloy steels and carbon steels.

#### WELDMETAL COMPOSITION :

Element	Percent
C	0.10 Max
Si	0.2-0.5
Mn	1.0-2.0
Cr	23-26
Ni	12-14
Cb	2-3

#### CLASSIFICATION :

AWS A5.4	:	E-309-Cb-16
DIN 8556	:	E 22 12 R 26

#### CURRENT RANGE & PACKING DATA :

Size MM DxL	Current Range (Amps) AC or DC (+)	Pieces per Packet	Pieces per Carton
2.00x300	40-50	150	900
2.50x350	70-90	100	600
3.15x350	90-110	60	360
4.00x350	110-140	40	240
5.00x350	140-170	30	180





# STAINLESS STEEL ELECTRODES

## PRENOX-312

### CHARACTERISTICS :

PRENOX-312 is a medium heavy coated, highly alloyed AC/DC electrode for all positions welding. The electrode has quiet & stable arc, low spatter & easily detachable slag. It gives radiographic quality welds which are highly resistant to weld metal cracks and oxidation.

### APPLICATIONS :

For welding difficult to weld & problem steels, tools & dies, leaf springs, gears, high temperature steels, stainless to high carbon steels, wear plates, dissimilar steels, furnace parts & combustion chamber parts etc.

### WELDMETAL COMPOSITION :

Element	Percent
C	0.15 Max
Si	0.2-0.9
Mn	1.0-2.0
Cr	28-32
Ni	8.0-10.5
Mo	0.75 Max
S	0.03 Max
P	0.03 Max

### TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL :

Ultimate Tensile Strength Kg/mm <sup>2</sup>	Elongation % (L=5d)
70-80	22

## PRENOX-13

### CHARACTERISTICS :

A medium heavy coated, low hydrogen electrode which gives 13% Cr air hardenable welds. Hardening can be avoided through preheating and stress relieving.

### APPLICATIONS :

Used for welding of AISI 410 and similar stainless steels, stainless steels cutlery, pump parts, oil refinery equipment and corrosion & heat resisting applications.

### WELDMETAL COMPOSITION :

Element	Percent
C	0.10 Max
Si	0.20-0.70
Mn	1.00-Max
Cr	11-13
Ni	0.60 Max
S	0.03 Max
P	0.03 Max

### TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL :

Ultimate Tensile Strength Kg/mm <sup>2</sup>	Elongation % (L=5d)
45	20

### CLASSIFICATION :

AWS A5.4 : E-312 16  
IS : 5206 E 29.9 R 26

### CURRENT RANGE & PACKING DATA:

Size MM DxL	Current Range (Amps) AC or DC (+)	Pieces per Packet	Pieces per Carton
2.50x350	40-80	100	600
3.15x350	70-120	60	360
4.00x350	90-140	40	240
5.00x350	130-180	30	180



### CLASSIFICATION :

AWS A5.4 : E-410-15

### CURRENT RANGE & PACKING DATA :

Size MM DxL	Current Range (Amps) AC or DC (+)	Pieces per Packet	Pieces per Carton
2.00x300	40-50	150	900
2.50x350	55-70	100	600
3.15x350	80-110	60	360
4.00x350	110-140	40	240





# STAINLESS STEEL ELECTRODES

## PRENOX-17

### CHARACTERISTICS :

A medium heavy coated, low hydrogen electrode which gives 17% Cr air hardenable welds. Hardening can be avoided through preheating and stress relieving.

### APPLICATIONS :

Used for welding of AISI 430 and similar stainless steels, stainless steels cutlery, pump parts, oil refinery equipment and corrosion & heat resisting applications.

### WELDMETAL COMPOSITION :

Element	Percent
C	0.10 Max
Si	0.20-0.70
Mn	1.00-Max
Cr	15-17
Ni	0.60 Max
S	0.03 Max
P	0.03 Max

### TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL :

Ultimate Tensile Strength Kg/mm <sup>2</sup>	Elongation % (L=5d)
47	21

### CLASSIFICATION :

AWS A5.4 : E-430-15

### CURRENT RANGE & PACKING DATA:

Size MM DxL	Current Range (Amps) AC or DC (+)	Pieces per Packet	Pieces per Carton
2.00x300	40-50	150	900
2.50x350	55-70	100	600
3.15x350	80-110	60	360
4.00x350	110-140	40	240

### Instructions for All "Stainless Steel" Products :

- Keep electrodes dry.
- Do not use excessive current.
- Hold short arc.
- Use good fit-up on joints.
- Adopt proper sequence.
- Remove the slag with a stainless steel wire brush.

## Space Age Technology

