ZuperFab

Empowering Welding And Cutting

A Range of Stainless Steel Electrodes for Fabrication

EWAC Alloys Limited

ZuperFab E308-16 AC / DC+

An Advanced Electrode for highest Quality Welding of Stainless Steel type AISI 304 and Equivalent Grades.

Principal Applications:
For joining and cladding applications on 18 Cr / 8 Ni type stainless steels with normal carbon content.

Outstanding Features:
- Excellent operating features and easy slag control in all positions.
- Smooth, well - rippled weld beads with negligible spatter.
- Confirms to ASME Sec II, Part C, SFA 5.4, Class E 308-16.

Characteristics:
Precisely controlled chemistry of the core wire and the flux coating enables consistent achievement of outstanding weld metal properties. High deposit strength and optimum ferrite content always assures freedom from hot cracking.

Procedure:
Clean weld area. Bevel heavy sections 60° to 90° groove. Clamp or tack long seams. Use chill bars and back-up plates to minimise distortion. Deposit stringer beads with shortest arc length. Chip slag between passes. Prevent localised heat build-up by staggered welding.

Technical Characteristics: Typical All-weld Chemistry (Wt %)

C	Mn	Si	Cr	Ni	S	P	Cu
0.04	0.75	0.50	19.00	9.50	0.02	0.03	0.02

Typical Mechanical Properties:
Tensile Strength : 590 MPa
Elongation (L=4D) : 40%

Recommended Amperages:

Size (mm)	2.5	3.15	4	5
Amps	50-80	70-110	90-140	130-180

Length of Electrode: 350mm

ZuperFab E308L-16 AC / DC+

An Advanced Electrode for highest Quality Welding of Stainless Steel type AISI 304, AISI 304L and Equivalent Grades.

Principal Applications:
For joining and cladding applications on 18 Cr / 8 Ni type stainless steels with normal or extra low carbon content.

Outstanding Features:
- Excellent operating features and easy slag control in all positions.
- Smooth, well - rippled weld beads with negligible spatter.
- Confirms to ASME Sec II, Part C, SFA 5.4, Class E 308L-16.

Characteristics:
Precisely controlled chemistry of the core wire and the flux coating enables consistent achievement of outstanding weld metal properties. Extra low carbon content of weld metal keeps free from intergranular corrosion. High deposit ductility and optimum ferrite content always assures freedom from hot cracking without sacrificing corrosion resistance.

Procedure:
Clean weld area. Bevel heavy sections 60° to 90° groove. Clamp or tack long seams. Use chill bars and back-up plates to minimise distortion. Deposit stringer beads with shortest arc length. Chip slag between passes. Prevent localised heat build-up by staggered welding.

Technical Characteristics: Typical All-weld Chemistry (Wt %)

C	Mn	Si	Cr	Ni	S	P	Cu
0.03	0.80	0.50	19.00	9.50	0.02	0.03	0.20

Typical Mechanical Properties:
Tensile Strength : 550 MPa
Elongation (L=4D) : 40%

Recommended Amperages:

Size (mm)	2.5	3.15	4	5
Amps	50-80	70-110	90-140	130-180

Length of Electrode: 350mm

ZuperFab E316 -16 AC/DC+

An Advanced Electrode for highest Quality Welding of Stainless Steel Type AISI 316 and Equivalent Grades

Principal Applications:
For joining and cladding applications on 18 Cr / 12 Ni / 2 Mo Type Stainless Steels with normal Carbon content.

Outstanding Features:
- Excellent operating features and easy slag control in all positions.
- Smooth, well - rippled weld beads with negligible spatter.
- Confirms to ASME Sec II, Part C, SFA 5.4, Class E 316-16.

Characteristics:
Precisely controlled chemistry of the core wire and the flux coating enables consistent achievement of outstanding weld metal properties. High strength deposit and optimum ferrite content always assures total freedom from hot cracking without sacrificing corrosion resistance.

Procedure:
Clean weld area, Bevel heavy sections 60° to 90° groove. Clamp / tack long seams. Use chill bars and back-up plates to minimise distortion. Deposit stringer beads with shortest arc length. Chip slag between passes. Prevent localised heat build-up by staggered welding.

Technical Characteristics: Typical All-weld Chemistry (Wt %)

C	Mn	Si	Cr	Ni	S	P	Mo	Cu
0.04	0.75	0.30	18.00	12.00	0.02	0.03	2.20	0.20

Typical Mechanical Properties:
Tensile Strength : 570 MPa
Elongation (L=4D) : 35 %

Recommended Amperages:

Size (mm)	2.5	3.15	4	5
Amps	50-80	70-110	90-140	130-180

Length of Electrode: 350mm

ZuperFab E316L-16 AC / DC+

An Advanced Electrode for highest Quality Welding of Stainless Steel of type AISI 316, AISI316L and Equivalent Grades.

Principal Applications:
For joining and cladding applications on 18 Cr / 12Ni / 2 Mo type stainless steels with normal or extra low carbon content.

Outstanding Features:
- Excellent operating features and easy slag control in all positions.
- Smooth, well - rippled weld beads with negligible spatter.
- Confirms to ASME Sec II, Part C, SFA 5.4, Class E 316L - 16.

Characteristics:
Precisely controlled chemistry of the core wire and the flux coating enables consistent achievement of outstanding weld metal properties. Extra low carbon content of the weld metal ensures freedom from intergranular corrosion. High deposit ductility & optimum ferrite content always assures freedom from hot cracking, without sacrificing corrosion resistance.

Procedure:
Clean weld area. Bevel heavy sections 60° to 90° groove. Clamp or tack long seams. Use chill bars and back-up plates to minimise distortion. Deposit stringer beads with shortest arc length. Chip slag between passes. Prevent localised heat build-up by staggered welding.

Technical Characteristics: Typical All-weld Chemistry (Wt %)

C	Mn	Si	Cr	Ni	S	P	Mo	Cu
0.03	0.80	0.60	18.00	12.00	0.02	0.03	2.30	0.20

Typical Mechanical Properties:
Tensile Strength : 550 MPa
Elongation (L=4D) : 35%

Recommended Amperages:

Size (mm)	2.5	3.15	4	5
Amps	50-80	70-110	90-140	130-180

Length of Electrode: 350mm

ZuperFab E309-16 AC / DC+

An Advanced Electrode for highest Quality Welding of Stainless Steel type AISI 309 and for Welding Carbon Steel to Stainless Steel type AISI 304 and for Equivalent Grades.

Principal Applications:
For joining and cladding applications on 25 Cr / 12 Ni type stainless steels and for welding dissimilar steels such as joining 18 Cr / 8 Ni type stainless steels to Plain Carbon or Low Alloys Steels. Also useful for depositing 'barrier' layer on Plain Carbon Steels prior to overlay with Cr / Ni containing stainless Steels.

Outstanding Features:
- Excellent operating features and easy slag control in all positions.
- Smooth, well - rippled weld beads with negligible spatter.
- Confirms to ASME Sec II, Part C, SFA 5.4, Class E 309-16.

Characteristics:
Precisely controlled chemistry of the core wire and the flux coating enables consistent achievement of outstanding weld metal properties. High deposit strength and optimum ferrite content always assures freedom from hot cracking.

Procedure:
Clean weld area. Bevel heavy sections 60° to 90° groove. Clamp or tack long seams. Use chill bars and back-up plates to minimize distortion. Deposit stringer beads with shortest arc length. Chip slag between passes. Prevent localized heat build-up by staggered welding.

Technical Characteristics: Typical All-weld Chemistry (Wt %)

C	Mn	Si	Cr	Ni	S	P	Cu
0.05	0.75	0.50	23.00	13.00	0.02	0.03	0.20

Typical Mechanical Properties:
Tensile Strength : 590 MPa
Elongation (L=4D) : 35%

Recommended Amperages:

Size (mm)	2.5	3.15	4	5
Amps	50-80	70-110	90-140	130-180

Length of Electrode: 350mm

ZuperFab E309L-16 AC / DC+

An Advanced Electrode for highest Quality Welding of Stainless Steel type AISI 309L and for Welding Carbon Steel to Stainless Steel type AISI 304 and for Equivalent Grades.

Principal Applications:
For joining and cladding applications on 25 Cr / 12 Ni type stainless steels and for welding dissimilar steels such as joining 18 Cr / 8 Ni type stainless steels to Plain Carbon or Low Alloys Steels. Also useful for depositing 'barrier' layer on Plain Carbon Steels prior to overlay with Cr / Ni containing stainless Steels.

Outstanding Features:
- Excellent operating features and easy slag control in all positions.
- Smooth, well - rippled weld beads with negligible spatter.
- Confirms to ASME Sec II, Part C, SFA 5.4, Class E 309L-16.

Characteristics:
Precisely controlled chemistry of the core wire and the flux coating enables consistent achievement of outstanding weld metal properties. High deposit strength and optimum ferrite content always assures freedom from hot cracking.

Procedure:
Clean weld area. Bevel heavy sections 60° to 90° groove. Clamp or tack long seams. Use chill bars and back-up plates to minimize distortion. Deposit stringer beads with shortest arc length. Chip slag between passes. Prevent localized heat build-up by staggered welding.

Technical Characteristics: Typical All-weld Chemistry (Wt %)

C	Mn	Si	Cr	Ni	S	P	Cu
0.03	0.80	0.30	23.00	13.50	0.02	0.03	0.20

Typical Mechanical Properties:
Tensile Strength : 580 MPa
Elongation (L=4D) : 35%

Recommended Amperages:

Size (mm)	2.5	3.15	4	5
Amps	50-80	70-110	90-140	130-180

Length of Electrode: 350mm

ZuperFab E309Mo-16 AC / DC+

An Advanced Electrode for highest Quality Welding of Carbon Steels to Molybdenum-Containing Austenitic Stainless Steel of type AISI 316 Mo or Equivalent Grades.

Principal Applications:
For joining Carbon Steels to 18 Cr / 12 Ni / 2 Mo type stainless steels, and to deposit the 'barrier' layer for Molybdenum - containing stainless overlays on carbon steels.

Outstanding Features:
- Excellent operating features and easy slag control in all positions.
- Smooth, well - rippled weld beads with negligible spatter.
- Confirms to ASME Sec II, Part C, SFA 5.4, Class E 309Mo-16.

Characteristics:
Precisely controlled chemistry of the core wire and the flux coating enables consistent achievement of outstanding weld properties. High deposit ductility and optimum ferrite content always assures total freedom from cracking, in spite of dilution.

Procedure:
Clean weld area. Bevel heavy sections 60° to 90° groove. Clamp / tack long seams. Use chill bars and back-up plates to minimise distortion. Deposit stringer beads with shortest arc length. Chip slag between passes. Prevent localized heat build-up by staggered welding.

Technical Characteristics: Typical All-weld Chemistry (Wt %)

C	Mn	Si	Cr	Ni	S	P	Mo	Cu
0.04	0.80	0.3	22.5	13.00	0.02	0.03	2.50	0.20

Typical Mechanical Properties:
Tensile Strength : 580 MPa
Elongation (L=4D) : 35%

Recommended Amperages:

Size (mm)	2.5	3.15	4	5
Amps	50-80	70-110	90-140	130-180

Length of Electrode: 350mm

Fabrication range of products

- ***ZuperFab E310-16***
- ***ZuperFab E347-16***
- ***ZuperFab E308H-16***
- ***ZuperFab E410NiMo-15***
- ***ZuperFab E317-16***
- ***ZuperFab E317L-16***
- ***ZuperFab E2209-17 (Duplex SS)***
- ***ZuperFab E2594-17 (Super Duplex SS)***
- ***ZuperFab E385-17 (Super Austenitic)***
- ***Ni Based Alloys & Specialized welding consumables as per the requirements of customer like ferrite no.***
- ***% Carbon, IGC etc.***