

CAST IRON & NICKEL-BASED ALLOYS



Description & Applications

Electrode with pure nickel core wire, suitable cold welding of cast iron and for joining cast iron parts to steel, copper, and nickel.

Re-baking: $350^{\circ}\text{C} \pm 20^{\circ}\text{C}$ for 2 hours.

For welding and repairing of grey cast iron, white and black heart malleable cast iron and Austenitic Nodular cast iron.

Welding current

AC, DC±

Welding Positions



Classifications

SFA/AWS A5.15 ENiCl
DIN 8573 E Ni BG-22

All weld metal typical composition, %

C	Fe	Ni
0.50	2.00	Bal.

All weld metal typical mechanical properties,

Yield strength, MPa	>200
Tensile strength, MPa	380-420
Elongation, %	>5
Hardness, HB	140

Approvals

Welding parameters

Diameter, mm	Length, mm	Welding Current, A	Packet weight, kg	No. of Packet per Carton
2.5	300	60-80	1	10
3.2	350	80-120	1	10
4.0	350	110-150	1	10
5.0	-	-	-	-

- Available in plastic tube & metal can pack.

Description & Applications

Electrode having a Nickel Iron core wire, suited for welding of cast iron and for joining cast iron parts to steel, copper and nickel. It features highest strength properties than pure nickel weld metal and is therefore suited for joining nodular cast iron, malleable cast iron and austenitic nodular cast iron.

Re-baking: 350 °C ± 20 °C for 2 hours.

Nodular cast iron, white and black heart malleable cast iron, cast iron with lamellar graphite.

Welding current

AC, DC±

Welding Positions



Classifications

SFA/AWS A5.15	ENiFe-CI
DIN 8573	E Ni Fe-1 BG-22

All weld metal typical composition, %

C	Fe	Ni
0.50	Bal.	55.0

All weld metal typical mechanical properties,

Yield strength, MPa	≥300
Tensile strength, MPa	420-460
Elongation, %	≥10
Hardness, HB	175

Approvals

Welding parameters

Diameter, mm	Length, mm	Welding Current, A	Packet weight, kg	No. of Packet per Carton
2.5	300	60-80	1	10
3.2	350	80-120	1	10
4.0	350	110-150	1	10
5.0	-	-	-	-

- Available in plastic tube & metal can pack.

Description & Applications

ZULFI ENi-1 is a basic coated pure nickel welding electrode. It is used for welding wrought and cast forms of commercially pure nickel to themselves and to steel. The weld metal has good corrosion resistance, particularly in alkalis.

Re-baking: 350 °C ± 20 °C for 2 hours.

ZULFI ENi-1 is well suited for welding chemical industry fabrications used to process vinyl chloride, fatty acids, soda, and sodium metal silicates.

Welding current

AC, DC+

Welding Positions



Classifications

SFA/AWS A5.11 ENi-1

All weld metal typical composition, %

C	Si	Mn	Ti	Al	Fe	Ni
0.50	0.30	0.30	1.30	0.10	0.40	97.0

All weld metal typical mechanical properties,

Yield strength, MPa	>300
Tensile strength, MPa	>500
Elongation, %	>30

Charpy V

Test temperature, °C	+20
Impact values, J	75

Approvals

Welding parameters

Diameter, mm	Length, mm	Welding Current, A	Packet weight, kg	No. of Packet per Carton
2.5	300	45-80	1	10
3.2	350	70-120	1	10
4.0	350	100-150	1	10
5.0	-	-	-	-

- Available in plastic tube & metal can pack.

Description & Applications

ZULFI ENiCrFe2 is used for welding nickel chromium iron alloys, for welding the clad side of joints on steel clad with nickel chromium iron weld metal. The electrode may be used for applications at temperatures ranging from cryogenic to about 900 °F. It can be used for welding steel to other nickel alloys also.

Re-baking: 350 °C ± 20 °C for 2 hours.

ZULFI ENiCrFe2 is designed for dissimilar welds between nickel-chromium-iron alloys to mild steels or stainless steels, welding in harsh corrosive environments, such as desalination plants, petrochemical facilities, and power generation plants, and in temperature critical conditions, such as furnace equipment and pipe work.

Welding current

AC, DC+

Welding Positions



Classifications

SFA/AWS A5.11 ENiCrFe-2

All weld metal typical composition, %

C	Si	Mn	Fe	Cr	Mo	Ni	Nb+Ta
0.035	0.75	2.0	10.0	15.0	0.90	68.0	1.50

All weld metal typical mechanical properties,

Yield strength, MPa	>400
Tensile strength, MPa	>600
Elongation, %	>35

Charpy V

Test temperature, °C	+20
Impact values, J	75

Approvals

Welding parameters

Diameter, mm	Length, mm	Welding Current, A	Packet weight, kg	No. of Packet per Carton
2.5	300	45-80	1	10
3.2	350	70-110	1	10
4.0	350	100-140	1	10
5.0	-	-	-	-

- Available in plastic tube & metal can pack.

Description & Applications

ZULFI ENiCrFe3 is used for welding nickel chromium iron alloys, for welding the clad side of joints on steel clad with nickel chromium iron weld metal. The electrode may be used for applications at temperatures ranging from cryogenic to about 900 °F. It can be used for welding steel to other nickel alloys also.

Re-baking: 350 °C ± 20 °C for 2 hours.

ZULFI ENiCrFe3 is designed for welding in harsh corrosive environments, such as desalination plants, petrochemical facilities, and power generation plants, and in temperature critical conditions, such as furnace equipment and pipe work.

Welding current

AC, DC+

Welding Positions



Classifications

SFA/AWS A5.11 ENiCrFe-3

All weld metal typical composition, %

C	Si	Mn	Fe	Cr	Mo	Ni	Nb+Ta
0.030	0.50	6.0	6.0	15.0	0.90	68.0	2.00

All weld metal typical mechanical properties,

Yield strength, MPa	>400
Tensile strength, MPa	>550
Elongation, %	>35

Charpy V

Test temperature, °C	+20
Impact values, J	75

Approvals

BV, DNV Grade ENiCrFe-3

Welding parameters

Diameter, mm	Length, mm	Welding Current, A	Packet weight, kg	No. of Packet per Carton
2.5	300	45-80	1	10
3.2	350	70-110	1	10
4.0	350	100-140	1	10
5.0	-	-	-	-

- Available in plastic tube & metal can pack.

Description & Applications

ZULFI ENiCrMo3 is a basic coated electrode for Nickel base 625 alloy. Extremely high resistance to stress corrosion crack and pitting (PREN 52). Low expansion coefficient between carbon -steel and austenitic CrNi(Mo) steel. Exceptional welding properties in all positions except for vertical down. Good slag detachability, high resistance to porosity, notch-free weld seams and high degree of purity. The electrode and the weld -metal meet the highest quality requirements.

Re-baking: 350 °C ± 20 °C for 2 hours.

ZULFI ENiCrMo3, Ni based CrMoNb electrode is used for welding of Ni-alloys of the same or similar type as e.g., Inconel 625, for welding 5% and 9% Ni Steel. The electrode is very suitable for welding of 254 SMO, i.e., UNS S31254 Steel.). It is used extensively in overlay cladding where a similar chemical composition is required on the clad side.

Welding current

AC, DC+

Welding Positions



Classifications

SFA/AWS A5.11 ENiCrMo-3

All weld metal typical composition, %

C	Mn	Fe	Cr	Mo	Ni	Nb+Ta
0.030	0.50	0.40	21.80	8.50	64.0	3.50

All weld metal typical mechanical properties,

Yield strength, MPa	>500
Tensile strength, MPa	>760
Elongation, %	>35

Charpy V

Test temperature, °C	-196
Impact values, J	45

Approvals

BV, DNV Grade ENiCrMo-3

Welding parameters

Diameter, mm	Length, mm	Welding Current, A	Packet weight, kg	No. of Packet per Carton
2.5	300	45-80	1	10
3.2	350	70-110	1	10
4.0	350	100-140	1	10
5.0	-	-	-	-

- Available in plastic tube & metal can pack.

Description & Applications

ZULFI ENiCu-7 is primarily used for welding nickel-copper alloys to themselves and to steel. This covered electrode is also utilized for cladding steel joints with nickel-copper alloy and for surfacing steel with a nickel-copper weld method.

Re-baking: 350 °C ± 20 °C for 2 hours.

ZULFI ENiCu-7 is welded with the base metals ASTM B127, B163, B164, and B165. This wire is well suited for welding in salt, seawater, and reducing acid environments.

Welding current

AC, DC+

Welding Positions



Classifications

SFA/AWS A5.11 ENiCu-7

All weld metal typical composition, %

C	Si	Mn	Fe	Cu	Ni
0.030	0.30	3.25	0.40	Rem.	64.0

All weld metal typical mechanical properties,

Yield strength, MPa	>300
Tensile strength, MPa	>480
Elongation, %	>35

Charpy V

Test temperature, °C	+20
Impact values, J	75

Approvals

Welding parameters

Diameter, mm	Length, mm	Welding Current, A	Packet weight, kg	No. of Packet per Carton
2.5	300	45-80	1	10
3.2	350	70-120	1	10
4.0	350	100-150	1	10
5.0	-	-	-	-

- Available in plastic tube & metal can pack.

Description & Applications

Electrode having a Nickel Iron core wire, suited for welding of cast iron with or without preheating. Preferably used for cover and filler passes with dilution kept low. Welded metal closely matches the color of base metal. Cast iron.

Typical applications include repairs to engine blocks and heads, gear housings, machine bases, as well as repairs to used castings. Is also used to rectify casting defects on new castings. Nodular cast iron, white and black heart malleable cast iron, cast iron with lamellar graphite.

Welding current

AC, DC±

Welding Positions



Classifications

SFA/AWS A5.15	ENiCu-B
DIN 8573	E Ni Cu BG-22

All weld metal typical composition, %

C	Fe	Cu	Ni
0.50	2.00	30.0	Bal.

All weld metal typical mechanical properties,

Yield strength, MPa	>300
Tensile strength, MPa	380-420
Elongation, %	>15
Hardness, HB	150

Approvals

Welding parameters

Diameter, mm	Length, mm	Welding Current, A	Packet weight, kg	No. of Packet per Carton
2.5	300	60-80	1	10
3.2	350	80-120	1	10
4.0	350	110-150	1	10
5.0	-	-	-	-

- Available in plastic tube & metal can pack.

Description & Applications

Electrode with special covering for the welding of pure aluminum. Electrode should be held perpendicular to the work piece and a short arc length maintained. Plates thicker than 10mm larger work pieces require preheating in the range of 150—250 °C. Since slag residue are corrosive, they must be completely removed from the weld bead. Electrode serves well as consumable in oxyacetylene welding. The covering being hygroscopic, the electrodes must be stored in a dry location, or re-dried as required.

Commercially pure aluminum e.g. AI 99.5 to AI99. DIN 1712. Aluminum alloys such as AI99.9 Mg0.5, AIRMg 0.5 DIN 1725.

Welding current

DC+

Welding Positions



Classifications

SFA/AWS A5.3	E1100
DIN 1732	EL-AI 99.5

All weld metal typical composition, %

Al	Mg	Si	Others
99.5	-	-	0.50

All weld metal typical mechanical properties,

Yield strength, MPa	≥30
Tensile strength, MPa	80
Elongation, %	>30

Approvals

Welding parameters

Diameter, mm	Length, mm	Welding Current, A	Packet weight, kg	No. of Packet per Carton
2.5	300	60-90	1	10
3.2	350	80-110	1	10
4.0	350	110-150	1	10
5.0	-	-	-	-

- Available in metal tube.

Description & Applications

Electrode with special covering for the welding of e aluminum. Silicon alloy and joining dissimilar aluminum alloys. Electrode should be held perpendicular to the work piece and a short arc length maintained. Plates thicker than 10mm larger work pieces require preheating in the range of 150—250 °C. Since slag residue are corrosive, they must be completely removed from the weld bead. Electrode serves well as consumable in oxyacetylene welding. The covering being hygroscopic, the electrodes must be stored in a dry location, or re-dried as required.

ZULFI AI5Si can be used for welding Al alloy such as AlMgSi and AlMg alloys up to 2.50% Mg, AlMnCu, AlSi cast alloys.

Welding current

DC+

Welding Positions



Classifications

SFA/AWS A5.3	E4043
DIN 1732	EL-Al Si 5

All weld metal typical composition, %

Al	Mg	Si	Fe
Bal.	-	5.0	0.10

All weld metal typical mechanical properties,

Yield strength, MPa	≥90
Tensile strength, MPa	160
Elongation, %	>15

Approvals

Welding parameters

Diameter, mm	Length, mm	Welding Current, A	Packet weight, kg	No. of Packet per Carton
2.5	300	60-90	1	10
3.2	350	80-110	1	10
4.0	350	110-150	1	10
5.0	-	-	-	-

- Available in metal tube.

Description & Applications

Electrode with special covering for the welding of aluminum. Silicon cast alloys. Electrode should be held perpendicular to the work piece and a short arc length maintained. Plates thicker than 10mm larger work pieces require preheating in the range of 150—250 °C. Since slag residue are corrosive, they must be completely removed from the weld bead. Electrode serves well as consumable in oxyacetylene welding. The covering being hygroscopic, the electrodes must be stored in a dry location, or re-dried as required.

ZULFI Al12Si can be used for welding Al alloy such as AlSi cast alloys up to 12% Si such as G-AlSi 12, G-AlSi12(Cu), G-AlSi 10 Mg (Cu), G-AlSi6 Cu 4.

Welding current

DC+

Welding Positions



Classifications

DIN 1732 EL-Al Si 12

All weld metal typical composition, %

Al	Mg	Si	Fe
Bal.	-	12.0	0.40

All weld metal typical mechanical properties,

Yield strength, MPa	>80
Tensile strength, MPa	180
Elongation, %	>5

Approvals

Welding parameters

Diameter, mm	Length, mm	Welding Current, A	Packet weight, kg	No. of Packet per Carton
2.5	300	60-90	1	10
3.2	350	80-110	1	10
4.0	350	110-150	1	10
5.0	-	-	-	-

- Available in metal tube.

HARDFACING



Description & Applications

ZULFI E250B is the basic coated hard facing electrodes with good weld characteristics, smooth and concentric arc, easy slag removal and less spatter. It is giving hardness around 250 BHN. It can be used as a hard facing layer where moderate hardness and high toughness required, and it can be used as a buffer layer for hard electrodes.

It is used for surfacing on parts, where a tough and easily machinable deposit is required, such as rails, gear wheels, shafts and other parts on farming and building machineries. Also suitable as cushion and filler layer on non-alloyed and low-alloyed steels and cast steel.

Welding current

AC, DC+

Welding Positions



Classifications

SFA/AWS A5.13 E Fe 1

All weld metal typical composition, %

C	Si	Mn	Cr
0.15	0.50	1.10	1.0

All weld metal typical mechanical properties,

Hardness, HB 250

Welding parameters

Diameter, mm	Length, mm	Welding Current, A	Packet weight, kg	No. of Packet per Carton
2.5	350	70-100	2.5	8
3.2	350	90-140	2.5	8
4.0	350	140-190	2.5	8
5.0	350	190-250	2.5	8

- Available in normal pack.

Description & Applications

Basic-coated MMA electrode for producing highly wear resisting hard facing deposits. Used for hardfacing against sliding impact. The weld metal is particularly resistant to impact and shock and very crack resistant.

Re-baking: 350 °C ± 20 °C for 2 hours.

Typical applications include rails, rail crossings, switch points, sprockets and wearing parts, such as rope pulleys, tumblers, rollers, caterpillar track rollers and links, wheel flanges, stud links and similar components.

Welding current

AC, DC+

Welding Positions



Classifications

SFA/AWS A5.13	E Fe 1
DIN 8555	E 1-UM-300

All weld metal typical composition, %

C	Si	Mn	Cr
0.10	0.70	0.70	3.0

All weld metal typical mechanical properties,

Hardness, HRC	30-33
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Welding parameters

Diameter, mm	Length, mm	Welding Current, A	Packet weight, kg	No. of Packet per Carton
2.5	350	60-90	2.5	8
3.2	350	100-140	2.5	8
4.0	350	140-190	2.5	8
5.0	350	190-260	2.5	8

- Available in normal pack.

Description & Applications

ZULFI E350B is the basic coated hard facing electrodes with good weld characteristics, smooth and concentric arc, easy slag removal and less spatter. It is giving hardness around 350 BHN. It can be used as a hard facing layer where moderate hardness and high toughness required, and it can be used as a buffer layer for hard electrodes. Can be machined by tungsten carbide tools.

It is used for surfacing on parts, where a tough and easily machinable deposit is required, such as rails, gear wheels, shafts and other parts on farming and building machineries, frogs, track rollers, chain support rolls, sprocket wheels and guide rolls.

Welding current

AC, DC+

Welding Positions



Classifications

SFA/AWS A5.13 E Fe 1

All weld metal typical composition, %

C	Si	Mn	Cr
0.20	0.50	1.10	3.0

All weld metal typical mechanical properties,

Hardness, HB 350

Welding parameters

Diameter, mm	Length, mm	Welding Current, A	Packet weight, kg	No. of Packet per Carton
2.5	350	70-100	2.5	8
3.2	350	90-140	2.5	8
4.0	350	140-190	2.5	8
5.0	350	190-250	2.5	8

- Available in normal pack.

Description & Applications

ZULFI E400T is especially suitable for services which there are required properties of austenitic manganese steel (Hadfield), i.e, conditions where there are high impact conditions, compression, friction and moderate abrasion. The high content manganese deposited contains nickel as an alloying element, which gives it excellent resistance to cracking, hardening with the cold mechanical work. ZULFI E400T can be used both as a coating electrode as also for junction welding between manganese steels and structural steels.

Re-baking: 350 °C ± 20 °C for 2 hours.

Mainly used in construction, quarries, and mining in general, in coatings of manganese steel wear parts, i.e, pins, plates and dredge drag buckets, hammer mills, jaws, plates and cone, crusher rings, wear plates, needles and railroad rails crossings, excavator buckets and loaders. It is also used for filling gaps in casting of austenitic manganese, given its color similarity with the base material.

Welding current

AC, DC+

Welding Positions



Classifications

SFA/AWS A5.13	E FeMn-A
EN 14700	E Z Fe9

All weld metal typical composition, %

C	Si	Mn	Ni
0.70	0.50	14.0	3.50

All weld metal typical mechanical properties,

Hardness, HRC (As weld)	20-25
Hardness, HRC (Work hardened)	43-48

Welding parameters

Diameter, mm	Length, mm	Welding Current, A	Packet weight, kg	No. of Packet per Carton
2.5	350	60-90	2.5	8
3.2	350	100-140	2.5	8
4.0	350	140-190	2.5	8
5.0	350	190-260	2.5	8

- Available in normal pack.

Description & Applications

Basic-Rutile coated MMA electrode for producing highly wear resisting hard facing deposits. Weld deposits are machinable by grinding only. The weld metal is free of cracks and pores and resistant to impact and shock. It can be used for cladding on parts of steel, cast steel and high Mn steel, subject to abrasion, impact, and compression. This electrode depositing a corrosion-resistant fully martensitic steel.

Re-baking: 350 °C ± 20 °C for 2 hours.

The electrode is suitable for hard facing shafts, racks and pinions, links and pins, valve seats of cast steel, mixer arms, feed gear, knives, loading buckets and track rollers.

Welding current

AC, DC+

Welding Positions



Classifications

DIN 8555

E 6-UM-55-GR

All weld metal typical composition, %

C	Si	Mn	Cr	Mo	Fe
0.25	0.50	0.40	13.50	0.05	Bal.

All weld metal typical mechanical properties,

Hardness, HRC

48-53

Welding parameters

Diameter, mm	Length, mm	Welding Current, A	Packet weight, kg	No. of Packet per Carton
2.5	350	60-90	2.5	8
3.2	350	100-140	2.5	8
4.0	350	140-190	2.5	8
5.0	350	190-260	2.5	8

- Available in normal pack.

Description & Applications

Thick basic coated electrode for depositing tough and wear resistant overlays on components subject to severe wear. The weld metal is crack-free and without porosity and resistance to impact and shock. It can be machined only by grinding. It is possible to deposit many layers without the need of buffer layers.

Excavator parts, bucket edges, coal planes, conveyor screws etc.

Welding current

AC, DC+

Welding Positions



Classifications

All weld metal typical composition, %

C	Si	Mn	Cr	Mo	V
1.30	0.45	1.40	20.0	0.40	0.05

All weld metal typical mechanical properties,

Hardness, HRC 53-58

Welding parameters

Diameter, mm	Length, mm	Welding Current, A	Packet weight, kg	No. of Packet per Carton
2.5	350	60-80	2.5	8
3.2	350	100-140	2.5	8
4.0	350	140-190	2.5	8
5.0	350	190-250	2.5	8

- Available in normal pack.

Description & Applications

ZULFI E500T is especially suitable for services which there are required properties of austenitic manganese steel (Hadfield), i.e, conditions where there are high impact conditions, compression, friction, and moderate abrasion. The high content manganese deposited contains nickel as an alloying element, which gives it excellent resistance to cracking, hardening with the cold mechanical work. ZULFI E500T can be used both as a coating electrode as also for junction welding between manganese steels and structural steels.

Re-baking: 350 °C ± 20 °C for 2 hours.

Mainly used in construction, quarries, and mining in general, in coatings of manganese steel wear parts, i.e, pins, plates and dredge drag buckets, hammer mills, jaws, plates and cone, crusher rings, wear plates, needles and railroad rails crossings, excavator buckets and loaders. It is also used for filling gaps in casting of austenitic manganese, given its color similarity with the base material.

Welding current

AC, DC+

Welding Positions



Classifications

SFA/AWS A5.13 E FeMn-C
EN 14700 E Z Fe9

All weld metal typical composition, %

C	Si	Mn	Ni	Cr
0.70	0.50	14.0	3.50	4.0

All weld metal typical mechanical properties,

Hardness, HRC (As weld) 20-25
Hardness, HRC (Work hardened) 48-52

Welding parameters

Diameter, mm	Length, mm	Welding Current, A	Packet weight, kg	No. of Packet per Carton
2.5	350	60-90	2.5	8
3.2	350	100-140	2.5	8
4.0	350	140-190	2.5	8
5.0	350	190-260	2.5	8

- Available in normal pack.

Description & Applications

Thick graphite coated electrode for depositing weld metal with chromium carbide. It is suitable for highly wear resistant overlays subject to abrasion. The typical transverse cracks occurring in such a hard weld metal are not detrimental for abrasion resistance. It is machinable only by grinding. A buffer layer is necessary for the third layer.

Wearing parts subject to mineral abrasion such as conveyor screws, mixer blades, concrete pump parts, excavator bucket edges and parts in petrochemical applications.

Welding current

AC, DC+

Welding Positions



Classifications

All weld metal typical composition, %

C	Si	Mn	Cr	Mo	V
2.0	0.50	1.40	10.0	0.40	0.015

All weld metal typical mechanical properties,

Hardness, HRC	58-63
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Welding parameters

Diameter, mm	Length, mm	Welding Current, A	Packet weight, kg	No. of Packet per Carton
2.5	350	60-80	2.5	8
3.2	350	100-140	2.5	8
4.0	350	140-190	2.5	8
5.0	350	190-250	2.5	8

- Available in normal pack.

Description & Applications

Basic coated electrode for depositing weld metal with chromium carbide. It is suitable for highly wear resistant overlays subject to abrasion. A buffer layer is necessary for the three-layer deposit.

Wearing parts subject to mineral abrasion such as conveyor screws, mixer blades, concrete pump parts, excavator bucket edges and parts in petrochemical applications.

Welding current

AC, DC+

Welding Positions



Classifications

All weld metal typical composition, %

C	Si	Mn	Cr	Mo	V
0.50	0.40	0.30	5.0	0.50	0.50

All weld metal typical mechanical properties,

Hardness, HRC 58-63

Welding parameters

Diameter, mm	Length, mm	Welding Current, A	Packet weight, kg	No. of Packet per Carton
2.5	350	60-80	2.5	8
3.2	350	100-140	2.5	8
4.0	350	140-190	2.5	8
5.0	350	190-250	2.5	8

- Available in normal pack.

Description & Applications

High graphite coated electrode for depositing weld metal with chromium carbide. It is suitable for highly wear resistant overlays subject to abrasion. The typical transverse cracks occurring in such a hard weld metal are not detrimental for abrasion resistance. It is machinable only by grinding. A buffer layer is necessary for the third layer.

Re-baking: 300 °C ± 20 °C for 1 hour.

Wearing parts subject to mineral abrasion such as conveyor screws, mixer blades, concrete pump parts, excavator bucket edges, oil expeller worms, screw conveyors, cement die rings, miller tires, excavator teeth and parts in petrochemical applications.

Welding current

AC, DC+

Welding Positions



Classifications

All weld metal typical composition, %

C	Si	Mn	Cr
4.0	2.25	1.0	30.0

All weld metal typical mechanical properties,

Hardness, HRC	58-63
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Welding parameters

Diameter, mm	Length, mm	Welding Current, A	Packet weight, kg	No. of Packet per Carton
2.5	350	50-100	2.5	8
3.2	350	90-150	2.5	8
4.0	350	120-200	2.5	8
5.0	350	160-250	2.5	8

- Available in normal pack.

Description & Applications

Basic-coated MMA electrode for producing highly wear resisting hard facing deposits. Weld deposits are machinable by grinding only. The weld metal is free of cracks and pores and resistant to impact and shock. It can be used for cladding on parts of steel, cast steel and high Mn steel, subject to abrasion, impact, and compression. Suitable for hard facing excavator parts, bucket edges, bucket teeth and drilling bits. It gives a hardness of 60 RC with controlled inter-pass temperature of less than 1000 °C.

Re-baking: 350 °C ± 20 °C for 2 hours.

Typical application includes the hard facing of excavator parts, bucket edges, bucket teeth, crusher jaws and cones, mill hammers and drilling bits.

Welding current

AC, DC+

Welding Positions



Classifications

EN 14700

E Fe 8

All weld metal typical composition, %

C	Si	Mn	Cr	Mo	Fe
0.50	2.30	0.40	9.50	0.05	Bal.

All weld metal typical mechanical properties,

Hardness, HRC

56-60

Welding parameters

Diameter, mm	Length, mm	Welding Current, A	Packet weight, kg	No. of Packet per Carton
2.5	350	60-90	2.5	8
3.2	350	100-140	2.5	8
4.0	350	140-190	2.5	8
5.0	350	190-260	2.5	8

- Available in normal pack.

Description & Applications

Medium graphite coated electrode for depositing weld metal with chromium carbide. It is suitable for highly wear resistant overlays subject to abrasion. The typical transverse cracks occurring in such a hard weld metal are not detrimental for abrasion resistance. It is machinable only by grinding. A buffer layer is necessary for the third layer.

Wearing parts subject to mineral abrasion such as conveyor screws, mixer blades, concrete pump parts, excavator bucket edges, oil expeller worms, screw conveyors, cement die rings, miller tires, excavator teeth and parts in petrochemical applications.

Welding current

AC, DC+

Welding Positions



Classifications

All weld metal typical composition, %

C	Si	Mn	Cr
2.50	2.25	1.0	3.0

All weld metal typical mechanical properties,

Hardness, HRC	58-63
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Welding parameters

Diameter, mm	Length, mm	Welding Current, A	Packet weight, kg	No. of Packet per Carton
2.5	350	50-80	2.5	8
3.2	350	90-120	2.5	8
4.0	350	120-160	2.5	8
5.0	350	160-200	2.5	8

- Available in normal pack.

Description & Applications

UNICUT is a specially designed electrode producing a highly forceful and concentrated arc, which can be efficiently used for cutting, gouging, and piercing holes in carbon steels, cast iron and manganese steels. UNI-CUT special electrode does not heat up the material to be cut excessively due to ionizing additives in coating design which results in the lower heat affected zone..

Used for cutting mild steels, low carbon steels, copper & its alloys, manganese, aluminum, nickel & its alloys. Also suitable for burning rivets, dismantling work at site, cutting unwanted metals including runners, risers and gates in castings.

Welding current

DC+

Welding Positions



Classifications

All weld metal typical composition, %

All weld metal typical mechanical properties,

Welding parameters

Diameter, mm	Length, mm	Welding Current, A	Packet weight, kg	No. of Packet per Carton
2.5	300	100-150	2.5	8
3.2	350	140-180	5	4
4.0	350	200-250	5	4
5.0	350	250-300	5	4

- Available in normal pack.

