



**INDUSTRIES
WE
SERVE**

CEMENT

FORGING

MINING

KUZEAL

STEEL

SUGAR

POWER

RAILWAY

FOUNDRY

MIG WIRE

SAW FLUX & WIRE

FLUX CORED WIRE

**KUZEAL
WELDING SOLUTIONS**

SPECIAL WELDING ELECTRODES

Where Passion meets Technology

About Us

Our Company believe in customer satisfaction through our best services & variety of products. It has been our constant endeavor to achieve goodwill & build long lasting business relationship with various sectors like Sugar, Cement, Power, Steel, Mines, Paper, Ceramic, Refractories, OEM'S & other private Industries.



Our Vision

To become a global organisation known for providing premium quality products & services.



Our Mission

To be best in the segment by providing high-quality products & services for customer's value creation.



Our Goal

To manage the distribution business in a manner to facilitate quick service with variety of branded products at lower cost.

Our Core Values



Ethical
Business



Continuous
Growth



Passion



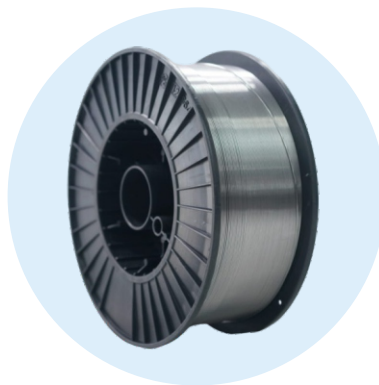
Trust



Gratitude

KULKARNI & SONS is a well established ISO 9001 : 2015 certified, diverse & growing company which has been serving the needs of commercial & industrial business. Under the brand name **"KUZEAL"** the company is specialized in manufacturing high quality Low Heat Input Welding Electrodes, SAW Flux & SAW Wire, Flux Cored Wire, TIG & MIG Wires, Cold Welding Compounds, Custom fabricated welding services (CFWS) & Job Works. **"KUZEAL"** products features **"High Quality With Cost Effective Pricing & Strong Service Back-Up"**. Consistent Quality is always first above everything else & **"KULKARNI & SONS"** is proud to say that one can **"Weld with complete confidence"** with our world class quality products. Having these capabilities, We feel proud & confident to address all the customers there needs in a most appropriate, timely & economical manner.

KUZEAL WELDING SOLUTIONS PRODUCT SPECTRUM



- Low, Medium & High Tensile Electrodes
- Repair & Maintenance Electrodes
- Stainless Steel Electrodes
- Cast Iron Electrodes
- Hard Facing Electrodes
- Flux Cored Wire
- SAW Welding Flux & SAW Wire

PRODUCT SPECTRUM

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KUZEAL R-13

ELECTRODE FOR MILD STEEL
(E6013 GRADE)

KUZEAL R-13 a low heat input welding electrode for welding of structural steel & plates. It gives excellent operational characteristics like easy slag removal, striking & re-striking, smooth & stable arc & low spatter. Weld bead appears to be shiny with uniform ripples.

Applications :

Welding of Structural joints, Tanks & Vessels & General Fabrication.

CURRENT Amps

2.50 X 350	50 - 90
3.15 X 350	90 - 140
4.00 X 450	120 - 170
5.00 X 450	140 - 200

PROPERTIES :

UTS : 470 N/mm²

YS : 440 N/mm²

Elongation : 27%

KUZEAL B-18

ELECTRODE FOR CARBON STEEL
(E7018 GRADE)

KUZEAL B-18 a low hydrogen electrode for radiographic weld quality. The deposits are tough & ductile with smooth arc. Deposition efficiency is approx 120%. It is excellent for thick plates and high restrained joints. Use short arc length for better results.

Applications :

Joining of heavy structures & plates subjected to dynamic loading & impact, pressure vessels, turbines etc.

CURRENT Amps

2.50 X 350	70 - 100
3.15 X 450	100 - 140
4.00 X 450	140 - 180
5.00 X 450	190 - 240

PROPERTIES :

UTS : 550 N/mm²

YS : 480 N/mm²

Elongation : 29%

KUZEAL B-181

ELECTRODE FOR CARBON STEEL
(E 7018-1)

KUZEAL B-181 a low hydrogen electrode for high stressed joints with easy weldability and having mechanical properties for radiographic weld quality. The deposits are tough & ductile with smooth arc & extra low spatter. Excellent for thick plates & high restrained joints.

Applications :

Pipe Welding & Ship building vessels, High strength steel constructions

CURRENT Amps

2.50 X 350	70 - 100
3.15 X 450	100 - 140
4.00 X 450	140 - 180
5.00 X 450	190 - 240

PROPERTIES :

UTS : 560 N/mm²

YS : 480 N/mm²

Elongation : 28%

KUZEAL 90B3

ELECTRODE FOR LOW ALLOY &
HIGH STRENGTH (E 9018 B3)

KUZEAL 90B3 is a low hydrogen basic coated electrode for radiographic weld deposits of 2.25% Cr & 1% Mo having excellent strength & creep resistance properties upto 500°C. Electrode offers resistance to moisture reabsorption which avoids hydrogen cracking & starting porosity.

Applications :

Welding of Cr-Mo & Cr-Mo-V Steels. Low alloy steels, boilers, piping operating @ 600°C

CURRENT Amps

2.50 X 350	70 - 100
3.15 X 350	90 - 130
4.00 X 350	140 - 180
5.00 X 350	180 - 230

PROPERTIES :

UTS : 650 N/mm²

YS : 560 N/mm²

Elongation : 21%

KUZEAL COROSTAIN-A


**ELECTRODE FOR STAINLESS STEEL
(E 308L GRADE)**

KUZEAL COROSTAIN - A is a low carbon 19% Cr & 9% Ni stainless steel electrode for resistance to oxidation & cracking. Low carbon in the electrode reduces the chances of carbide formation in welding & reduces the possibilities of inter granular corrosion. Gives smooth bead & excellent creep strength properties.

Applications :

AISI 301L, 302L, 304L & 308L, Oil refineries, Valve seats, Dairy & Chemical tanks.

CURRENT Amps

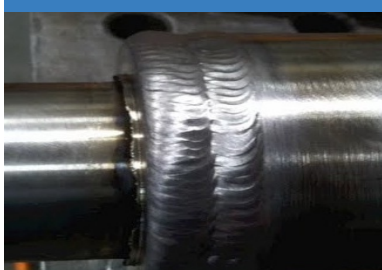
2.50 X 350	60 - 80
3.15 X 350	80 - 110
4.00 X 350	110 - 150
5.00 X 350	130 - 160

PROPERTIES :

UTS : 560 N/mm²

YS : 380 N/mm²

Elongation : 40%

KUZEAL COROSTAIN-B


**ELECTRODE FOR JOINING &
Cladding SS (E 309L GRADE)**

KUZEAL COROSTAIN - B is a low carbon with 24% Cr & 12% Ni SS electrode for resistance to oxidation & cracking at high temperature. Extra low carbon gives the weld deposit more resistance to inter granular corrosion as compared to normal 309 grade.

Applications :

Welding of 24% Cr & 12% Ni grade of AISI 309L. Joining of SS to CI, MS & alloy steels.

CURRENT Amps

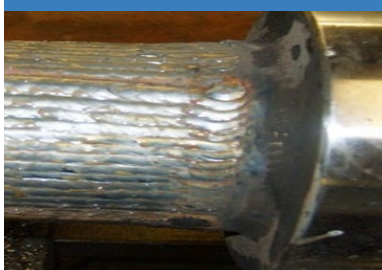
2.50 X 350	60 - 80
3.15 X 350	80 - 100
4.00 X 350	110 - 140
5.00 X 350	130 - 170

PROPERTIES :

UTS : 590 N/mm²

YS : 440 N/mm²

Elongation : 38%

KUZEAL COROSTAIN-C


**ELECTRODE FOR JOINING &
Cladding (E 309LMo GRADE)**

KUZEAL COROSTAIN - C is a low heat input extra low carbon giving deposition of 23% Cr, 12% Ni & 2.50% Mo. Addition of Mo to the normal 309 increases tensile strength & corrosion resistance. Weld metal has excellent resistance to oxidation at temperature upto 1100°C.

Applications :

For dissimilar steels like MS to CS & SS. Turbine shafts made of ferritic chrome & rotary kiln.

CURRENT Amps

2.50 X 350	50 - 90
3.15 X 350	80 - 110
4.00 X 350	120 - 140
5.00 X 350	130 - 190

PROPERTIES :

UTS : 660 N/mm²

YS : 480 N/mm²

Elongation : 38%

KUZEAL COROSTAIN-D


**ELECTRODE FOR JOINING
(E 316L GRADE)**

KUZEAL COROSTAIN - D is an extra low carbon electrode for welding of corrosion resistant Cr-Ni-Mo steels. The coating is designed for moisture absorption to give weld free from porosity. Deposited weld metal has excellent creep resistance properties with smooth weld bead.

Applications :

Chemical tanks, coils & vats exposed to corrosion due to sulphuric & acidic acids.

CURRENT Amps

2.50 X 350	60 - 90
3.15 X 350	80 - 120
4.00 X 350	110 - 170
5.00 X 350	140 - 210

PROPERTIES :

UTS : 590 N/mm²

YS : 430 N/mm²

Elongation : 38%

KUZEAL COROSTAIN - E

ELECTRODE FOR JOINING 310
GRADE OF STAINLESS STEEL

KUZEAL COROSTAIN - E is a medium heavy coated electrode depositing 25% Cr & 20% Ni. Electrode is specially designed for resistance to oxidation & scaling in continuous service upto 1100°C giving smooth & stable arc. Heat input should be as low as possible.

Applications :

For straight steels & dissimilar steels, high Temp. furnace parts, Joining of MS to SS, Gas turbine combustion chambers.

CURRENT Amps

2.50 X 350	50 - 90
3.15 X 350	80 - 120
4.00 X 350	110 - 170
5.00 X 350	140 - 210

PROPERTIES :

UTS : 590 N/mm²

YS : 430 N/mm²

Elongation : 36%

KUZEAL SUPERSTAIN

ELECTRODE FOR WELDING DUPLEX
STAINLESS STEEL (E2209)

KUZEAL SUPERSTAIN is a rutile coated duplex stainless steel electrode depositing 24% Cr, 10% Ni, 3% Mo & 0.016% N. The weld deposits offers excellent resistance to stress corrosion, cracking & pitting. Re-dry the electrodes @ 300°C for 1 hour before use.

Applications :

For welding of 2205, 2209 & similar composition of Stainless Steel, Petro-chemical, Ship building, Gas Pipeline.

CURRENT Amps

2.50 X 350	50 - 90
3.15 X 350	80 - 120
4.00 X 350	110 - 150
5.00 X 350	140 - 190

PROPERTIES :

UTS : 730 N/mm²

YS : 550 N/mm²

Elongation : 26%

KUZEAL SUPERSTAIN-DX

ELECTRODE FOR WELDING SUPER
DUPLEX SS (E2594 GRADE)

KUZEAL SUPERSTAIN - DX is a specially designed super duplex stainless steel electrode depositing 25.5% Cr, 10% Ni, 4% Mo & 0.2% N. It has high strength, impact & excellent resistance to corrosion, cracking & pitting. Re-dry the electrodes @ 300°C for 1 hour before use.

Applications :

For welding of 2594 & similar composition of SS, Valves, Vessels, Gas pipeline, Petro chemical & Ship building

CURRENT Amps

2.50 X 350	70 - 100
3.15 X 350	90 - 120
4.00 X 350	110 - 160
5.00 X 350	150 - 200

PROPERTIES :

UTS : 760 N/mm²

YS : 550 N/mm²

Elongation : 23%

KUZEAL COROSTAIN-186

ELECTRODE FOR JOINING STAINLESS
STEEL OF (E307 GRADE)

KUZEAL COROSTAIN - 186 is a medium heavy coated electrode depositing 18% Cr, 8% Ni & 6% Mn weld metal having excellent heat resistance upto 900°C. It has good corrosion resistance from atmosphere & sea water. Use low heat input.

Applications :

Cladding of SS, SS to Mn, 12% Mn Steel. Heat resistant steel, surfacing applications to enhance impact & abrasion.

CURRENT Amps

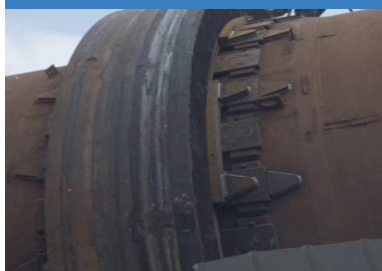
2.50 X 350	60 - 90
3.15 X 350	80 - 120
4.00 X 350	110 - 170
5.00 X 350	140 - 210

PROPERTIES :

UTS : 620 N/mm²

HARDNESS : 210 BHN

480 BHN (Work Harden)

KUZEAL NICRO


ELECTRODE FOR INCONEL NiCrFe Alloys (E NiCrFe-3 GRADE)

KUZEAL NICRO is an electrode for repair & maintenance of Ni-Cr & Iron alloys to themselves & for dissimilar welding between NiCrFe alloys & steels. Due to high Mn content in the weld deposits, it reduces the possibilities of long crack openings. It gives superior corrosion resistance at elevated temperature upto 980°C.

Applications :

Inconel 600, 601, Rotary Kiln, Turbine parts, Power, Cement & Petro Industries.

CURRENT Amps

2.50 X 350	70 - 85
3.15 X 350	80 - 100
4.00 X 350	100 - 130
5.00 X 350	120 - 150

PROPERTIES :

UTS : 690 N/mm²

YS : 420 N/mm²

Elongation : 36%

KUZEAL NICROMO


ELECTRODE FOR INCONEL Alloys (E NiCrMo-3 GRADE)

KUZEAL NICROMO is used for cladding & joining of Nickel alloys 625, 800, 801, 825, 26-6Mo, SS to CS & dissimilar steel. The electrode offers excellent creep resistance properties along with corrosion, oxidation & pitting. Weld metal is heat resistant upto 1000°C.

Applications :

Welding of Gas pipeline, furnace parts, pressure vessels, Super heaters, Valve cladding etc.

CURRENT Amps

2.50 X 350	50 - 75
3.15 X 350	70 - 100
4.00 X 350	90 - 130
5.00 X 350	120 - 160

PROPERTIES :

UTS : 780 N/mm²

YS : 560 N/mm²

Elongation : 38%

KUZEAL BRONZEWELD - C


ELECTRODE FOR BRASS, BRONZE, TIN & COPPER Alloys

KUZEAL BRONZEWELD - C is a low heat input electrode specially designed for its weld metal deposits resist to sea water. Weld metal is free from porosity with smooth & uniform weld bead. Weld metal has excellent color match with bronze.

Applications :

Joining & surfacing of copper, brass, bronze & its alloys & also to cast iron & surfacing on steels, magma rotor & impellers.

CURRENT Amps

2.50 X 350	-
3.15 X 350	70 - 100
4.00 X 350	100 - 150
5.00 X 350	140 - 180

PROPERTIES :

UTS : 410 N/mm²

Elongation : 24%

KUZEAL BRONZEWELD - A


ELECTRODE FOR ALUMINUM BRONZE & ITS Alloys

KUZEAL BRONZEWELD - A is a low heat input electrode with highly alloyed for bronze, aluminum, nickel & manganese suitable for cladding & joining in marine applications. The weld metal is free from porosity with stable arc.

Applications :

Ship propellers, turbine valves, pumps, shafts, thrust bearings and in many applications in paper, chemical and sugar industries.

CURRENT Amps

2.50 X 350	-
3.15 X 350	70 - 110
4.00 X 350	110 - 150
5.00 X 350	140 - 180

PROPERTIES :

UTS : 470 N/mm²

Elongation : 32%

KUZEAL CASTIT

ELECTRODE FOR MACHINABLE
CAST IRON

KUZEAL CASTIT is a medium coated ferro nickel cast iron electrode for joining of CI parts & CI to MS joining. The weld deposits are soft, ductile & machinable. Use short arc & weld bead not more than 50 mm to release heat.

Applications :

Joining of various cast iron grades like Grey, Nodular, Malleable cast iron. Foundry defects, Engine heads, Pumps, Impeller castings etc.

CURRENT Amps

2.50 X 350	60 - 80
3.15 X 350	70 - 110
4.00 X 350	100 - 140
5.00 X 350	140 - 190

PROPERTIES :

Hardness :
160 - 210 BHN

KUZEAL CASTIT - 01

ELECTRODE FOR NON-MACHINABLE
CAST IRON

KUZEAL CASTIT - 01 is medium coated hydrogen controlled cast iron electrode. The weld deposits are non-machinable. It is recommended for overlay on greasy, oily & dirty cast irons. In case of heavy sections, the job needs to be pre-heated.

Applications :

Pump housings, machine casings, cast iron frames, rotor bodies, oil soaked castings, joining & repair of cast irons, gear box etc.

CURRENT Amps

2.50 X 350	60 - 80
3.15 X 350	70 - 100
4.00 X 350	100 - 140
5.00 X 350	120 - 160

PROPERTIES :

Hardness :
310 - 360 BHN

KUZEAL CASTIT - 02

ELECTRODE FOR JOINING &
REPAIR OF CAST IRON

KUZEAL CASTIT - 02 is a light coated graphite based cast iron electrode. It has excellent color match with all types of cast irons. The weld deposits are crack resistant, soft, ductile & machinable. It is also used for joining cast iron to steels.

Applications :

For welding of cast iron parts, re-build & repair of welding defects in cast iron foundries, re-building of pump impellers & other cast iron components.

CURRENT Amps

2.50 X 350	60 - 90
3.15 X 350	80 - 120
4.00 X 350	120 - 160
5.00 X 350	-

PROPERTIES :

Hardness :
200 - 220 BHN

KUZEAL CASTIT - 03

ELECTRODE FOR JOINING &
REPAIR OF CAST IRON

KUZEAL CASTIT - 03 is a ferro nickel type of machinable cast iron electrode for high strength joints on cast iron & joining of cast iron to steel. Used for repair of alloy cast iron, SG iron, grey & difficult to weld cast irons. Weld deposits have good strength & toughness.

Applications :

Repair of CI housings, CI components like pumps, gears, pulleys, cylinder blocks, engine heads, rotor drums etc.

CURRENT Amps

2.50 X 350	60 - 80
3.15 X 350	80 - 110
4.00 X 350	100 - 150
5.00 X 350	-

PROPERTIES :

UTS : 490 N/mm²
Hardness :
200 - 220 BHN

KUZEAL CASTIT - 04


**PURE NICKEL CAST IRON
MACHINABLE ELECTRODE**

KUZEAL CASTIT - 04 is a light coated cast iron electrode depositing high nickel weld metal. The weld deposits are extremely soft & ductile, crack resistant & machinable. Electrode gives smooth, stable arc & controlled penetration to reduce base metal dilution.

Applications :

For repair of cast iron defects, fill-up of blow holes, machining errors, build-up of cast iron components & crack repairs.

CURRENT Amps

2.50 X 350	60 - 80
3.15 X 350	80 - 110
4.00 X 350	100 - 140
5.00 X 350	-

PROPERTIES :

UTS : 310 N/mm²

Hardness :

160 - 190 BHN

KUZEAL CASTIT - 05


**MONAL ALLOY ELECTRODE
FOR CAST IRON REPAIR**

KUZEAL CASTIT - 05 is a medium coated low heat input electrode for welding of Ni-Cu (NiCu-7) Monal 400 & 404 to self & to steel, carbon steel & low alloy steels. The weld deposits are machinable with stable arc & easy slag removal. In case of heavy sections pre-heat the job.

Applications :

Joining of CI to steel, gears, machinery parts, pump bodies, repair of castings & foundry defects.

CURRENT Amps

2.50 X 350	60 - 80
3.15 X 350	90 - 110
4.00 X 350	110 - 140
5.00 X 350	130 - 180

PROPERTIES :

UTS : 470 - 510 N/mm²

KUZEAL CRISTAWELD


**ELECTRODE FOR LOW ALLOY
& HIGH TENSILE STEEL**

KUZEAL CRISTAWELD is a low heat input low hydrogen controlled electrode with high strength. The weld deposits are tough crack free & has high impact values. Use short & medium arc to avoid overheating.

Applications :

For welding of low & medium carbon steel, pressure vessels, excavator boom, pipe welding, crane jibs, steel castings & high restrained joints.

CURRENT Amps

2.50 X 350	70 - 90
3.15 X 350	100 - 140
4.00 X 350	140 - 170
5.00 X 350	170 - 210

PROPERTIES :

UTS : 550 N/mm²

Elongation :

22-30% (L=4d)

KUZEAL GOLD


**ELECTRODE FOR DISSIMILAR
& DIFFICULT TO WELD STEEL**

KUZEAL GOLD is a low heat input welding electrode for repair & maintenance. Weld deposits are extra strong & tough for joining unknown & difficult to weld steels with controlled grain structure. The weld deposits are crack free, corrosion & good temperature resistance.

Applications :

For unknown composition of steels, leaf & coil springs, Shaft build-up, Tool steels, Steel castings, Sugar mill roller journal.

CURRENT Amps

2.50 X 350	60 - 90
3.15 X 350	90 - 120
4.00 X 350	130 - 170
5.00 X 350	140 - 210

PROPERTIES :

UTS : 810 N/mm²

Elongation : 26 %

KUZEAL SUPER GOLD

ELECTRODE FOR DISSIMILAR
HIGH STRENGTH & TOUGHNESS

KUZEAL SUPER GOLD is a low heat input welding electrode for unknown and dissimilar composition of steels. The weld deposits extra strong & has high strength & toughness. The deposits are crack free & has good temperature & corrosion resistance

Applications :

For unknown composition of steels, leaf & coil springs, Shaft build-up, Tool steels, Steel castings, Sugar mill roller journal.

CURRENT Amps

2.50 X 350	60 - 90
3.15 X 350	90 - 120
4.00 X 350	130 - 170
5.00 X 350	140 - 210

PROPERTIES :

UTS : 810 N/mm²

Elongation : 26 %

KUZEAL FORCE

ELECTRODE FOR FORGING Dies

KUZEAL FORCE is a low heat input electrode for build-up of dies due to compression, impact, abrasion & thermal shocks. The weld deposits resists these factors & increase the service life. Weld deposits are hard & tough resisting repetitive impact. To avoid cracking, pre-heating upto 400°C & slow cooling is recommended.

Applications :

Build-Up of all types of Die impressions.

CURRENT Amps

2.50 X 350	-
3.15 X 350	100 - 120
4.00 X 350	130 - 170
5.00 X 350	160 - 220

PROPERTIES :**Hardness :**

38 - 42 HRC

KUZEAL FORCE SS

ELECTRODE FOR FORGING Dies
(H11 & H12)

KUZEAL FORCE SS is an electrode for build-up of dies made of tool steels, H type (H11 & H12) steels. Deposits are hard, tough & has excellent properties to resist repetitive impact & thermal shocks. To avoid cracking, pre-heat upto 400°C & slow cooling is recommended.

Applications :

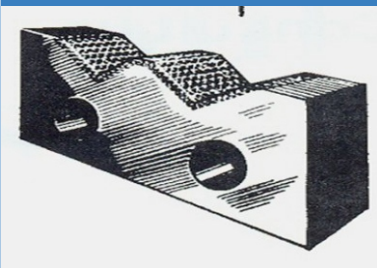
Build-Up of all types of working dies, heavy duty hot shears, die impressions.

CURRENT Amps

2.50 X 350	-
3.15 X 350	100 - 120
4.00 X 350	130 - 170
5.00 X 350	160 - 220

PROPERTIES :**Hardness :**

46 - 48 HRC

KUZEAL SUPER EDGE

ELECTRODE FOR CUTTING &
TRIMMING Dies & Tools

KUZEAL SUPER EDGE is low heat input electrode for overlay applications on high speed steels, tool steels in M series. The weld deposits are highly resistant to wear & retain hardness & toughness upto 600°C. Pre-heat the job upto 300°C depending on thickness

Applications :

Hot & Cold trimming dies, Shear blades, Blanking dies, Cutting tools, For M series tool steels, Piercing dies, Cutting knives.

CURRENT Amps

2.50 X 350	60 - 100
3.15 X 350	100 - 130
4.00 X 350	140 - 170
5.00 X 350	160 - 210

PROPERTIES :**Hardness :**

60 - 62 HRC

KUZEAL SUPER TOOL


ELECTRODE for HOT & Cold TRIMMING Dies & Tools

KUZEAL SUPER TOOL is a low heat input electrode for repair of tools & dies made of tool steel, H13 type of steel & low alloy steel. The weld deposits are heat treated where improved hardness is desired. The weld deposits gives improved edge hardness to cold cutting tools & shears.

Applications :

Hot & Cold Trimming dies, Blanking dies, Cutting tools, Molding dies, Extrusion & Feeding screws, Hot forging dies.

CURRENT Amps

2.50 X 350	60 - 100
3.15 X 350	100 - 130
4.00 X 350	140 - 170
5.00 X 350	160 - 210

Hardness : 42-48 HRC
(As welded) Heat treat @ 560OC : 58-62 HRC,
Heat treat @ 450OC : 56-58 HRC

KUZEAL 100


ELECTRODE for Low, MEDIUM CARBON & Alloy STEEL

KUZEAL 100 is a low heat input welding electrode for low & medium carbon steel & alloy steels. The deposits resists to mild abrasion, heavy impact, pressure & deformation. Weld deposits are tough & free from porosity. 2 to 3 layers of weld deposition is possible.

Applications :

Sugar Pinions, Gears, Idlers, Conveyor Screws, Sprockets, Pump shafts, Mixer blades etc.

CURRENT Amps

2.50 X 350	-
3.15 X 350	90 - 110
4.00 X 350	130 - 160
5.00 X 350	140 - 180

HARDNESS :

28-32 (As deposited)
30-36 (Work Harden)

KUZEAL 100 S


ELECTRODE for Low, MEDIUM CARBON & Alloy STEEL

KUZEAL 100 S is a surfacing electrode for low & medium carbon steel & alloy steels. Weld deposits has excellent resistance to deformation with medium toughness, impact & abrasion. Can be used as buffer layer before high hardness electrode. 2 to 3 layers of deposition is possible.

Applications :

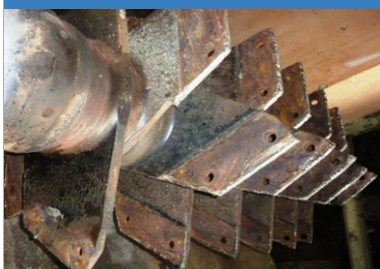
Machinery transit equipments, crane wheels, sprockets, mixer blades, sugar mill pinions.

CURRENT Amps

2.50 X 350	-
3.15 X 350	90 - 110
4.00 X 350	130 - 160
5.00 X 350	140 - 180

HARDNESS :

32-36 (As deposited)
36-38 (Work Harden)

KUZEAL HARDEGE


ELECTRODE for Edge RETENTION

KUZEAL HARDEGE is a heavy coated high efficiency low heat input welding electrode for overlay on parts subjected to high abrasion combined with moderate impact, medium shocks & wetness. The weld metal gives smooth & stable arc & shiny weld deposits.

Applications :

Mixer blades, Cane cutting knives, Screw conveyors, Bucket teeth, Wear pads, Crusher blades, Agitator arms etc.

CURRENT Amps

2.50 X 350	-
3.15 X 350	100 - 130
4.00 X 350	140 - 190
5.00 X 350	180 - 230

PROPERTIES :

Hardness : 57-60 HRC

KUZEAL HAMMERHARD

ELECTRODE FOR High ABRASION,
IMPACT & CORROSION

KUZEAL HAMMERHARD is a low heat input high chrome alloy for hard facing of parts subjected to heavy abrasion, impact with mild corrosion. Use medium arc length & low current to avoid excessive dilution with the parent metal. Hardness can be obtained in 2nd & 3rd layer.

Applications :

Sugar Mill Fiberizer Hammer, Asugar screw, Wear pads, Conveyors etc.

CURRENT Amps

2.50 X 350	-
3.15 X 350	120 - 140
4.00 X 350	140 - 190
5.00 X 350	160 - 230

PROPERTIES :

Hardness : 56-58 HRC

KUZEAL HARDLIFE

ELECTRODE FOR HEAVY ABRASION
& METAL TO METAL WEAR

KUZEAL HARDLIFE is a low heat input electrode for heavy abrasion, moderate impact & metal to metal wear with high deposition rate. The weld deposits retain its properties upto temperature 450°C. Pre-heat upto 150°C is recommended & dry the electrodes upto 300°C for 45 mins before use.

Applications :

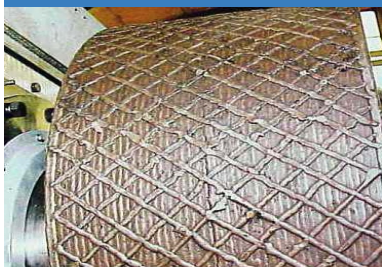
Hard facing of Crusher parts, Press screws & many other parts in Cement.

CURRENT Amps

2.50 X 350	-
3.15 X 350	110 - 140
4.00 X 350	140 - 180
5.00 X 350	190 - 230

PROPERTIES :

Hardness : 60-63 HRC

KUZEAL COMPLEXHARD

FOR SEVERE ABRASION
AT High TEMPERATURE.

KUZEAL COMPLEXHARD is an electrode for severe abrasion at high temperature. The weld deposits contains carbide in complex structure & retains abrasion resistance upto 500°C. Dry the electrodes if necessary upto 300°C for 45 mins before use.

Applications :

Blast furnace hoppers & throats, Screw conveyors, Crushing rolls & many other applications in Cement, Ceramic & Mining

CURRENT Amps

2.50 X 350	-
3.15 X 350	110 - 140
4.00 X 350	140 - 190
5.00 X 350	190 - 240

PROPERTIES :

Hardness : 63-65 HRC

KUZEAL HARDBLAST

ELECTRODE FOR ABRASION,
IMPACT, FRICTION UPTO 500°C.

KUZEAL HARDBLAST is a low heat input electrode suitable for cladding of parts subjected to high impact, abrasion & friction at temperature upto 500°C. The electrode gives smooth arc & low spatter & excellent bead appearance. Deposits upto 2 layers is permissible.

Applications :

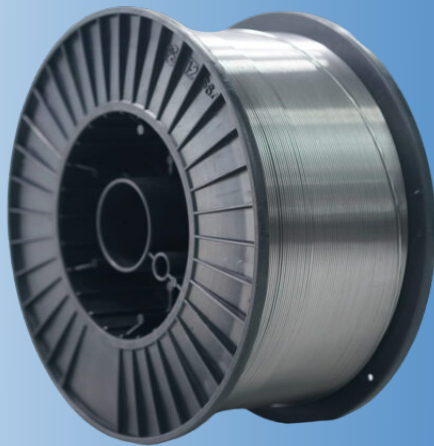
Seat area of blast furnace bells, hoppers, hot shears, tong pins, screens & cement mill parts etc.

CURRENT Amps

2.50 X 350	-
3.15 X 350	110 - 140
4.00 X 350	130 - 190
5.00 X 350	180 - 240

PROPERTIES :

HARDNESS : As deposited
50-55 HRC
@ 500OC : 42-46 HRC



KUZEAL

KUZOFIL FLUX CORED WIRE

KUZEAL KUZOFIL FORCE



FLUX CORE WIRE FOR FORGING DIES

CURRENT (A) / VOLTAGE (V)

1.60 MM	150-300A / 25-28V
2.40 MM	250-450A / 27-29V

KUZEAL KUZOFIL FORCE Flux cored wire is used for joining, build-up & crack repair having high tensile strength, impact & elongation. It is used for build-up of dies due to compression, impact, abrasion & thermal shocks. The weld deposits resists these factors & increase the service life. Weld deposits are hard & tough resisting repetitive impact. Pre-heat the job upto 450°C & slow cooling is recommended.

PROPERTIES

UTS	850 N/mm ²
Machinability	Good
HARDNESS	35-38 HRC
Polarity	DC Wire Positive
WIRE Stickout	30-35 MM

Applications :

Assemblies & repair of equipments, Forging dies, CS structures etc

Packing

12.5 Kg Spool &
15.00 Kg Spool

KUZEAL KUZOFIL FORCE SS



FOR FORGING Dies (H11 & H12)

CURRENT (A) / VOLTAGE (V)

1.60 MM	150-300A / 25-28V
2.40 MM	250-450A / 27-29V

KUZEAL KUZOFIL FORCE Flux cored wire is used for joining, build-up & crack repair having high tensile strength, impact & elongation. It is used for build-up of dies due to compression, impact, abrasion & thermal shocks. The weld deposits resists these factors & increase the service life. Weld deposits are hard & tough resisting repetitive impact. Pre-heat the job upto 450°C & slow cooling is recommended.

PROPERTIES

UTS	850 N/mm ²
Machinability	Good
HARDNESS	43-48 HRC
Polarity	DC Wire Positive
WIRE Stickout	30-35 MM

Applications :

Build-Up of all types of working dies, heavy duty hot shears, die impressions.

Packing

12.5 Kg Spool &
15.00 Kg Spool

KUZEAL KUZO FIL OA 32


KUZEAL KUZO FIL OA 32 is a low alloy flux cored wire to deposit weld metal resistant to metal friction & pressure. It can be used as a buffer layer for repair of worn parts with excellent machinability. The deposits resist mild abrasion, heavy impact & deformation. The deposits are tough & free from porosity.

Applications :

Machinery transit parts
crane wheels, sprockets,
mixer blades, sugar mill
pinions.

PROPERTIES

HARDNESS	30-35 HRC
Polarity	DC Wire Positive
WIRE Stickout	30-35 MM

CURRENT (A) / Voltage (V)

1.60 MM	150-300A / 25-28V
2.00 MM	250-450A / 26-28V
2.40 MM	150-300A / 27-29V
2.80 MM	250-450A / 27-29V

KUZEAL KUZO FIL OA 62


KUZEAL KUZO FIL OA 62 is a high alloyed flux cored wire for hard facing of parts subjected to heavy abrasion & medium impact with corrosion resistance. The weld deposits cannot be heat treated or machined. The desired hardness can be obtained in 2nd layer. The weld deposits can be ground only.

Applications :

Screw conveyors in
various applications,
Hammers & Knives,
Wear pads, Conveyors
etc

PROPERTIES

HARDNESS	55-59 HRC
Polarity	DC Wire Positive
WIRE Stickout	30-35 MM

CURRENT (A) / Voltage (V)

1.60 MM	150-300A / 25-28V
2.00 MM	250-450A / 26-28V
2.40 MM	150-300A / 27-29V
2.80 MM	250-450A / 27-29V

KUZEAL KUZO FIL OA 72


KUZEAL KUZO FIL OA 72 is a high alloyed flux cored wire to deposit weld metal resistant to pressure, impact & abrasion. The weld deposits contain carbide in complex structure & retain abrasion resistance up to 500°C.

Applications :

Blast furnace hoppers and
throats, Screw conveyors,
Crushing rolls & many other
applications in Cement,
Ceramic & Mining

PROPERTIES

HARDNESS	61-63 HRC
Polarity	DC Wire Positive
WIRE Stickout	30-35 MM

CURRENT (A) / Voltage (V)

1.60 MM	150-300A / 25-28V
2.00 MM	250-450A / 26-28V
2.40 MM	150-300A / 27-29V
2.80 MM	250-450A / 27-29V



Where Passion meets Technology



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