

ULTRALLOY®

The International Experience in Maintenance and Production Welding Technology

STEEL

ULTRALLOY 61

AC/DC +
AWS E.6013

All position easy to use general purpose electrode. For fabrication of thin or heavy gauge Mild-steel. Easy slug removal after a spatter free deposition.

T.S.: 510 N/mm² Elong: 23 - 27%

ULTRALLOY 62

AC/DC +
AWS E.7018

A low-hydrogen, iron-powder electrode especially developed for X-ray proven welds. For its class, an excellent all-position electrode with superior arc striking characteristics. This electrode is suited for welding problem steels, such as steels high in sulphur and phosphorous added to improve machinability.

Applications: Structures, tanks, pip-lines, etc.

T.S.: 585 N/mm² Elong: 25 - 30%
Y.S.: 490 N/mm²

Approved by: Lloyds 1, 2, 3 A.B.S., Shell & B.P., S.A. Petro-Ref., S.A. Rail, S.A.B.S.

ULTRALLOY 68

AC/DC +

Super Tensile strength electrode for the welding of difficult steels without cracking.

Applications: Axles, shafts, chassis, dies, plough-discs, springs, hydraulic piping, etc.

T.S.: 900 N/mm² Elong: 20%
Y.S.: 780 N/mm²

STAINLESS STEEL

ULTRALLOY 317-L

AWS: A 5.4 - E 317L-16
DIN: ETI - 1.4438

Weld deposits of austenitic Chrome-Nickel-Molybdenum alloy with extra high moly content and special low carbon content for superior corrosion resistance.

T.S.: 560 N/mm² AC/DC +
Y.S.: 360 N/mm² Elong: 42%

ULTRALLOY 309-Mo

AWS: A 5.4 - E 309-16
DIN: ER 23-12-26

Welding of 25/12 heat resisting steels. Ideal for all position welding. Deposited weld metal of excellent soundness.

T.S.: 580 N/mm² AC/DC +
Y.S.: 480 N/mm² Elong: 36%

ULTRALLOY 310

AWS: A 5.4 - E 310-16
DIN: 8556 ETI 25-20-26

Superior for the welding of austenitic heat resistant steel such as AISI 310, 310S and 405. Quiet and stable arc. Excellent bead appearance.

T.S.: 640 N/mm² AC/DC +
Y.S.: 450 N/mm² Elong: 30%

ULTRALLOY 316L

AWS: A 5.4 - E316L-16
DIN: ETI 19-12-3NC 26

Joining and cladding of 18/8 austenitic steels such as 316 and 316L. This alloy is well suited to join 316 to AISI 304, 321 and 347 steels.

T.S.: 590 N/mm² AC/DC +
Y.S.: 460 N/mm² Elong: 37%

F = FLUX COATED GAS RODS

Authorised Agent

ULTRALLOY
(PTY) LTD.
P.O. BOX 2154
GRAMERVIEW 2050

CAST - IRON

ULTRALLOY 91

Inexpensive nickel-free electrode particularly designed for the sealing of so-called unweldable cast-iron. Excellent as a cushion layer for ULTRALLOY 96 if high strength joints are required. Ultralloy 91 has a close colour match to cast-iron and should be applied where machinability is not essential.

T.S.: 450 N/mm² AC/DC +

ULTRALLOY 96

A ferro-nickel electrode for high crack resistant welds on all types of cast-iron. Excellent for welding thick pieces. This alloy is ideal for the joining of cast-iron to steel.

Applications: Engine blocks, pumps, gears, machine-bases, etc.

T.S.: 450 N/mm² Hardness: 180 BHN

ULTRALLOY 990

Pure nickel core wire electrode with special coating to allow welding at lowest possible amperage. Deposits are fully machinable. Excellent for the welding of thin pieces as well as cast-iron to steel. This alloy makes it easy to weld most types of cast irons the cold way.

Applications: Engine blocks, casting blow holes, gears, rocker arms, bell-housings and cylinder heads.

T.S.: 300 N/mm² Hardness: 150 BHN

SILVER + SOLDER + BRAZING

ULTRASIL 56F

A low temperature bonding, extreme high strength silver alloy suited to join all stainless steels, copper, brass, bronze. Ideal for the Food Industry, as it is Cadmium free.

T.S.: 600 N/mm² Bonding temp.: 545°C.

ULTRACOP 55

Self-fluxing on copper to copper joints. Excellent electrical conductivity. For joints of copper to brass and bronze use ULTRAFLEX-55. This alloy is not suited to join ferrous metals.

T.S.: 350 N/mm² Bonding temp.: 635°C.

ULTRABRAZE 84F

The most universal brazing type alloy available to join or overlay steel, cast-iron, stainless steel, copper, brass and all bronzes. This alloy is work-hardening and resists friction, impact and corrosion.

Applications: Gears, pump sleeves, shafts, pump impellers, etc.

T.S.: 600 N/mm² Bonding temp.: 750°C.

CUTTING + GROOVING

ULTRALLOY 28-S

Especially developed to cut and groove all types of metals. Excellent for cutting stress-relieving-lines and removing unwanted fatigued metal.

AC or DC current straight (-)

⚡ = ARC ELECTRODES

PROTECTIVE COATINGS

ULTRALLOY 422-S

This electrode was especially developed for the joining and over-laying of manganese steels and steel alloys with elevated carbon, chrome and nickel contents.

ULTRALLOY 422-S produces a fully austenitic deposit with a recovery of 160% and is machinable. Its excellent elongation of 34% makes it well suited to weld dissimilar steels.

Applications: Rails - Crusher jaws - Liner plates - Rocktuff and T-1 type steels



ULTRALLOY 430

A chrome-manganese alloy to rebuild or join high manganese steel, like rails, earth-moving implements, etc. Superior cushion layer for hard overlays. Deposit work hardens.

AC/DC + Hardness: RC - 25
Work harding: RC 45 - 50



ULTRALLOY 463

For ULTRA hardness to resist high abrasion and corrosion. This alloy produces deposits with exceptional evenly distributed chrome carbides, which will stand up against toughest abrasion conditions.

Applications: Cane-knives, loader teeth, ploughs, dragline buckets/lips, ripper teeth, etc.



ULTRALLOY 460C

Deposits heat treatable high-speed-steel with excellent cutting and piercing characteristic. Provides maximum hardness on chisels, machine-tools, drills, stamps, dies, foundation drills, etc. Use ULTRALLOY-68 as cushion layer. Preheat larger and complex sections 200° to 400°C.



BRONZE

ULTRABRONZE 70

For welding all types of bronze, including copper, brass, cast-iron and steel. Excellent for cladding of cast-iron / steel surfaces. Good frictional and corrosion resistance, work-hardening.

Applications: Bearing shells, pump impellers, pump housings, etc.

DC + Hardness: 110 BHN

ALUMINIUM

ULTRALLOY 12-Si or for Gas use Ultra 125C

An aluminium alloy for the joining of practically all types of wrought and cast aluminium alloys, including those containing magnesium. Its specially formulated flux coating permits the operator to choose whether to use ULTRALLOY 12S on DC current+ or whether to apply it with a Gas-torch using a carburising flame.

DC+ or Gas T.S.: 180 N/mm²

🔥 = GAS RODS



For reason of space we have not listed our full product range. Please contact us for any special alloy requirements.