## GRIBINOX 25.9.5L

## A SUPER DUPLEX ELECTRODE FOR WELDING ALLOYS OF SIMILAR COMPOSITION

## IDENTIFICATION

GRIBINOX 25.9.5L E 25.9.5-15

## CLASSIFICATION

AWS/SFA 5.4:E25.9.5-15

## DESCRIPTION

Basic coated electrode designed to match similar alloys The electrode gives matching strength and corrosion resistance in the solution treated condition but can also be used in the as-welded condition. Nitrogen and nickel contents are controlled to give a balanced duplex structure to minimize the risk of cracking, particularly in highly restrained welds.

WELD METAL ANALYSIS (RANGE) \%

| C | Cr | Ni | Mn | S | P | Mo | Cu | Si | N | W |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 0.04 \\ & \max \end{aligned}$ | 24.0-27.0 | 8.0-10.5 | $\begin{gathered} 2 \\ \max \end{gathered}$ | $\begin{gathered} 0.025 \\ \max \end{gathered}$ | $\begin{aligned} & 0.03 \\ & \max \end{aligned}$ | 2.5-4.5 | 0.40-1.50 | $\begin{gathered} 0.7 \\ \max \end{gathered}$ | 0.20-0.30 | 0.4-1.0 |

MECHANICAL PROPERTIES (RANGE)

| UTS (MPa) | EL (\%) <br> (L=4D) | CVN Impact Value |  |
| :---: | :---: | :---: | :---: |
| 760 min | 15 min | Temp | Joules |
|  |  | $-40^{\circ} \mathrm{C}$ | 45 min |
|  |  | $-50^{\circ} \mathrm{C}$ | 54 min |

## TYPICAL APPLICATIONS

Pumps and valves, corrosion/ wear resisting parts and process equipment for use in offshore oil and gas industries, pulp, paper and textile industries, and chemical and petrochemical plant.

## MATERIALS TO BE WELDED

- SAF 2507, ASTM S-32750, S-32760
- ASTM A351, A744 (cast) - CD4MCu, UNSS32550, S3 2750, S32760 (wrought)
- ASTM A240 (wrought) - UNS S32550
- UNS : 393770, J93380, J93404
- DIN 1.4515, 1.4517 CD 4MCuN (cast) and similar composition.
- Steel EN 1.4410, NF 23CND 2506AZ, SS2328.
- Standard duplex : S 31803 and UNS 532205

MICROSTRUCTURE : In the solution treated condition the microstructure is duplex with about 3060\% ferrite dependent upon dilution.
INTERPASS TEMPERATURE : $100^{\circ} \mathrm{C}$ max
HEAT M-PUT : 1.0-1.5 kJ / mm
SCALING TEMPERATURE : Approx $850^{\circ} \mathrm{C}$ (air)
CORROSION TEMPERATURE : Very good resistance to pitting and stress corrosion cracking in

## GWELD

Chioride contasining environments. Pitting resistance in accordance with ASTM G-48A better than $40^{\circ} \mathrm{C}$.

## WELDING POSITION :



## PACKING PARAMETERS

| Size (mm) | Length (mm) | Amps DC (+) | Packing / <br> Box (kg) | Packing / <br> Box (Pcs) |
| :---: | :---: | :---: | :---: | :---: |
| 2.5 | 350 | $60-90$ | $2 \times 5=10$ | $94 \times 5=470$ |
| $3.15 / 3.20$ | 350 | $70-120$ | $2 \times 5=10$ | $60 \times 5=300$ |
| 4 | 350 | $100-155$ | $2 \times 5=10$ | $38 \times 5=190$ |
| 5 | 350 | $130-180$ | $2 \times 5=10$ | $24 \times 5=120$ |

