

# GRIBINOX 2553

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

### IDENTIFICATION

GRIBINOX 2553 E 2553-15

### CLASSIFICATION

AWS/SFA 5.4: E 2553-15

### DESCRIPTION

Gribinox 2553 is a basic coated electrode designed to match similar alloys usually supplied as castings. The addition of copper improves corrosion resistance in sulphuric acid media and also increase strength and wear resistance. 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. It works in all position with easy slag removal.

### WELD METAL ANALYSIS (RANGE) %

C	Cr	Ni	Mn	Si	S	P	Mo	Cu	N
0.025 - 0.06	24.0 - 27.0	6.5 - 8.0	0.5 - 1.5	1 max	0.03 max	0.04 max	2.9 - 3.9	1.5 - 2.5	0.10 - 0.25

### MECHANICAL PROPERTIES (RANGE)

UTS (MPa)	EL (%) (L=4D)	CVN Impact Value	
		Temp	Joules
690 - 800	20 - 35	20°C	45 - 80

### 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. For Welding of CD4MCu duplex cast steel.

### MATERIALS TO BE WELDED

- ASTM A351, A744 (cast) - CD4MCu, UNS J93370.
- ASTM A240 (wrought) - UNS S32550
- BS 3146- ANC 21, BS 3100 332C13
- DIN 1.4515, 1.4517

**MICROSTRUCTURE** : In the solution treated condition the microstructure is duplex with about 30-60% ferrite dependent upon dilution.

### WELDING POSITION :



### PACKING PARAMETERS

# GWELD

Size (mm)	Length (mm)	Amps DC (+)	Packing / Box (kg)	Packing / Box (Pcs)
2.5	350	60 - 90	2 x 5 = 10	94 x 5 = 470
3.15 / 3.20	350	70 - 120	2 x 5 = 10	60 x 5 = 300
4	350	100 - 155	2 x 5 = 10	38 x 5 = 190
5	350	130 - 210	2 x 5 = 10	24 x 5 = 120