



## BETANOX 2594 - 16

STAINLESS STEEL (Duplex SS)



Basic coated 25/9/4 type super duplex stainless steel Electrode

**CLASSIFICATION : ISO 3581-A**

**AWS A/SFA 5.4**

E 25 9 4 N L R 12

E 2594-16

### KEY FEATURES :

- Rutile coated non-synthetic electrode
- Austenitic-ferritic duplex microstructure
- Excellent high strength combined with improved resistance to pitting and SSC in chloride environment
- Super duplex SS weld with N addition
- Weld metal characteristics similar to super duplex wrought and cast alloys
- Easy slag removal
- Uniform and fine ripples
- Radiographic quality weld

### WELDING POSITION :



**AC (70 OCV)/DCEP**

### TYPICAL APPLICATIONS :

- Welding of super duplex stainless steels UNS S 32750, S 32760, SFA 2507, Zeron 100 and Casting alloys e.g. ASTM A890 Gr.5A
- Suitable for materials 1.4410, 1.4460, 1.4462, 1.4463
- Pipe work systems, flow lines, risers, manifolds, process equipment for use in offshore oil and gas industries, chemical and petrochemical plant
- Also to be used on duplex 2205 grade

**REDRYING CONDITION : 300°C for 1 hr.**

### CHEMICAL COMPOSITION OF UNDILUTED WELD METAL, Wt % :

	C	Mn	Si	Cr	Ni	Mo	Cu	N	S	P
Typical	0.03	1.2	0.6	25.9	9.2	4.0	0.3	0.23	0.02	0.02
Specification	0.04 max	0.5-2.0	1.0 max	24-27	8.0-10.5	3.5-4.5	0.75 max	0.2-0.3	0.03 max	0.04 max

### MECHANICAL PROPERTIES OF ALL WELD METAL :

	Condition	UTS, MPa	EL%	CVN Impact, J		PREN
				+20°C	-20°C	
Typical	As Welded	880	27	52	35	50
Specification		760 min	15 min	40 min	27 min	40 min

### PARAMETERS - PACKING DATA :

Ø x L, mm	Amperage, A	Wt./Carton, Kg	Cartons/Box	Net wt./Box, Kg
2.5 x 350	50-80	2	5	10
3.15 x 350	70-110	2	5	10
4.0 x 350	90-140	2	5	10
5.0 x 350	130-180	2	5	10