GWELD
SEAL OF TRUST

GRITINOX 25.9.4L

A SUPER DUPLEX ELECTRODE FOR WELDING ALLOYS OF SIMILAR COMPOSITION

IDENTIFICATION
GRITINOX 25.9.4 L E 25.9.4-17

CLASSIFICATION
AWS/SFA 5.4:E2594-17 EN 1600: E2594 NLR

DESCRIPTION
Gritinox 25.9.4L electrode is 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	Si	S	P	Mo	Cu	N
0.04 max	24.0 -27.0	8.0 - 10.5	0.5 - 1.5	1.0 max	0.03 max	0.035 max	3.5 - 4.5	0.75 max	0.20 -0.30

MECHANICAL PROPERTIES (RANGE)

UTS (MPa)	EL (%) (L=4D)	CVN Impact Value	
760 - 800	18 - 35	**Temp**	**Joules**
		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.

MATERIALS TO BE WELDED
- SAF 2507, ASTM S-32750, S-32760
- ASTM A351, A744 (cast) - CD4MCu, UNS J93370.
- ASTM A240 (wrought) - UNS S32550
- BS 3146 - ANC 21, BS 3100 332C13
- DIN 1.4515, 1.4517
- Steel EN 1.4410, NF 23CND 25-06AZ, SS2328

MICROSTRUCTURE : In the solution treated condition the microstructure is duplex with about 30-60% ferrite dependent upon dilution.
INTERPASS TEMPERATURE : 100°C max
HEAT M-PUT : 0.5 - 1.5 kJ / mm

SCALING TEMPERATURE : Approx 850°C (air)
CORROSION TEMPERATURE : Very good resistance to pitting and stress corrosion cracking in Chloride containing environments. Pitting resistance in accordance with ASTM G-48A better than 40°C.

WELDING POSITION :

PACKING PARAMETERS

Size (mm)	Length (mm)	Amps AC (OCV:70V) / 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 - 180	2 x 5 = 10	24 x 5 = 120