

TYPE : Rutile

Applications

Welding of UNS S32750, S32760(Independent water power plant)

Characteristics on Usage

S-2594.16 is a lime-titania type electrode, all weld metal has a ferritic/austenitic structure. It is applicable to welding of Super duplex stainless steel(UNS S32750) as used for corrosion resistance applications as an alternative to austenitic stainless steels. Excellent in pitting corrosion resistance and intergranular corrosion as well as stress corrosion cracking resistance. The slag removability and welded metal appearance are good.

Notes on Usage

- ① Dry the electrodes at 350°C(662°F) for 60 minutes before use.
- ② Keep the current as low as possible and length as short as possible.
- ③ Remove rust, water, oil and paint from the groove.

Welding Position



1G (PA) 2F (PB)

Current

AC or DC +

Typical Chemical Composition of All-Weld Metal (%)

C	Si	Mn	P	S	Cr	Ni	Mo	N
0.019	0.58	0.53	0.020	0.012	25.17	8.9	3.9	0.22

Typical Mechanical Properties of All-Weld Metal

TS MPa(lbs/in ²)	EL (%)	CVN-Impact Value J (ft · lbs) -20°C (-4°F) -50°C (-58°F)
830 (120,400)	26	35 (25) 30 (22)

Ferrite No. of All-Weld Metal & Pitting Resistance Equivalent

Ferrite No.	Shaeffler (%)	1992 WRC (FN)	PREN
As welded	81	60	41.0

PREN = Cr + 3.3 x Mo + 16 x N

Approval

I Packing

Packet 2.5 kg (5.5 lbs)
Carton 2.5 kg (5.5 lbs) × 4 : 10kg(22 lbs)

Sizes Available and Recommended Currents (Amp.)

Size mm (in)	2.0 (5/64)	2.6 (3/32)	3.2 (1/8)	4.0 (5/32)	5.0 (3/16)
Length mm(in)	300 (12)	300 (12)	350 (14)	350 (14)	350 (14)
F	25 - 55	50 - 85	70 - 115	95 - 150	135 - 180
V-up, OH	20 - 50	45 - 80	65 - 110	85 - 135	-