S-2209.16

TYPE : Rutile

AWS A5.4 / ASME SFA5.4 E2209-16
JIS Z3221 ES2209-16
EN 1600 - E 22 9 3 N L

Applications

Welding of 22%Cr-5%Ni-2%Mo-0.15%N stainless steel (SAF2205, UNS31803).

Characteristics on Usage

S-2209.16 is a lime-titania type electrode, all weld metal has a ferritic/austenitic structure.
It is applicable to welding of duplex stainless steel(STS 329J3L) 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℃(662℉) 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) 3G (PF) 4G (PE)

Current

AC or DC +

Typical Chemical Composition of All-Weld Metal (%)

C	Si	Mn	P	S	Cr	Ni	Mo	N
0.029	0.78	1.03	0.023	0.012	23.1	9.2	3.1	0.12

Typical Mechanical Properties of All-Weld Metal

TS MPa(lbs/in²)	EL (%)	Temp. ℃ (℉)	CVN-Impact Value J (ft · lbs)
830 (120,400)	28	-20 (-4) -50 (-58)	50 (37) 45 (33)

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

Ferrite No.	Shaeffler (%)	1992 WRC (FN)	PREN
As welded	68	58	35

PREN = Cr + 3.3 x Mo + 16 x N

Approval

I Packing

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