BÖHLER FOX CN 25/9 CuT

Stick electrode, high-alloyed, superduplex stainless

Classifications

EN ISO 3581-A	AWS A5.4 / SFA-5.4
E 25 9 4 N L B 2 2	E2595-15

Characteristics and typical fields of application

Basic electrode of E 25 9 4 N L B / E2595-15 type, for welding of ferritic-austenitic superduplex steels. By virtue of specific alloy composition the deposit has, in addition to high tensile strength and toughness, also excellent resistance to stress corrosion cracking and pitting corrosion. The operating temperature range is –50ºC up to 250ºC. Well suited for the conditions in the offshore field.

Base materials

1.4410 X2CrNiMoN25-7-4, 1.4467 X2CrMnNiMoN26-5-4, 1.4468 GX2CrNiMoN25-6-3, 1.4501 X2CrNiMoCuWN25-7-4, 1.4507 X2CrNiMoCuN25-6-3, 1.4515 GX2CrNiMoCuN26-6-3, 1.4517 GX2CrNiMoCuN25-6-3-3
UNS S32750, S32760, J93380, S32520, S32550, S39274, S32950

Typical analysis

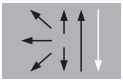
	C	Si	Mn	Cr	Ni	Mo	W	N	Cu	PRE_N
wt.-%	0.03	0.5	1.0	25.0	9.5	3.7	0.7	0.22	0.7	≥ 40

Mechanical properties of all-weld metal - typical values (min. values)

Condition	Yield strength $R_{p0.2}$	Tensile strength R_m	Elongation A (L_0=5d_0)	Impact energy ISO-V KV J	
	MPa	MPa	%	20°C	–50°C
u	650 (≥ 550)	850 (≥ 760)	28 (≥ 18)	80	40 (≥ 32)

u untreated, as welded

Operating data



Polarity	DC+
Electrode identification	FOX CN 25/9 Cu T E 25 9 4 N L B
Redrying	250 – 300°C / 2 h

Dimension mm	Current A
2.5 × 300	55 – 80
3.2 × 350	80 – 105
4.0 × 350	90 – 140

Suggested heat input is 0.3 – 1.5 kJ/mm, interpass temperature max. 100ºC.
Welding of root pass with "thick layer". Next two passes with thin layers and low heat input to avoid overheating and precipitations.
Post-weld heat treatment generally not needed. In special cases, solution annealing can be performed at 1100 – 1150ºC followed by water quenching.

Approvals

CE