

Classifications

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

Characteristics and typical fields of application

Basic electrode, for welding of ferritic-austenitic super duplex 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 -50 °C up to $+250\text{ °C}$. Well suited for the conditions in the offshore field

Base materials

25 % Cr-Super Duplex steels e.g.
1.4501 X2CrNiMoCuWN 25-7-4
UNS S 32750, UNS S32760,
ZERON 100, SAF 25/07, FALC 100

Typical analysis of all-weld metal (wt.-%)

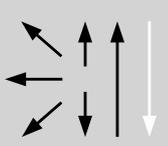
	C	Si	Mn	Cr	Ni	Mo	N	Cu	W		PRE _N
wt.-%	0.03	0.5	1.0	25.0	9.5	3.7	0.22	0.7	0.7		≥ 40

Mechanical properties of all-weld metal

Condition	Yield strength R _{p0,2}	Tensile strength R _m	Elongation A (L ₀ =5d ₀)	Impact work ISO-V KV J	
	MPa	MPa	%	+20 °C	-50 °C
u	650 (≥ 550)	850 (≥ 760)	25 (≥ 18)	75	50 (≥ 32)

u untreated, as welded

Operating data

	Polarity:	Redrying if necessary:	Electrode identification:	ø (mm)	L mm	Amps A
	DC (+)	250 – 300 °C, min. 2 h	FOX CN 25/9 Cu T E 25 9 4 N L B	2.5	300	55 – 80
				3.2	350	80 – 105
			4.0	350	90 – 140	

Welding of root pass with „thick layer“. Next two passes with thin layers and low heat input to avoid overheating and precipitations