

Classifications

EN ISO 14172	AWS A5.11	Material-No.
E Ni 6082 (NiCr20Mn3Nb)	E NiCrFe-3 (mod.)	2.4648

Characteristics and field of use

TOKO E NiCrFe-3 is predominantly used for joining identical or similar heat resistant Ni-base alloys, heat resistant austenites, cold tough Ni-steel, and for joining heat resistant austenitic-ferritic materials, such as 2.4817 (LC NiCr15Fe), 1.4876 (X10 NiCrTiAl 32 20), 1.4941 (X8 CrNTi 18 10). Specially also used for joinings of high C content 25/35 CrNi cast steel to 1.4859 or 1.4876 for petrochemical installations with working temperatures up to 900° C. The welding deposit is hot cracking resistant and does not tend to embrittlement.

The welding deposit of TOKO E NiCrFe-3 is hot cracking resistant, does not tend to embrittlement scale resistant at high temperatures.

Typical analysis in %

C	Si	Mn	Cr	Mo	Nb	Ni	Fe
0,025	0,4	5,0	19,0	1,5	2,2	balance	3,0

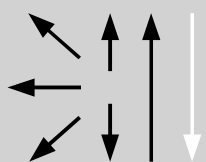
Mechanical properties of the weld metal

Heat-treatment	Yield strength R _{p0,2}	Tensile strength R _m	Elongation A	Impact strength K _V	
	MPa	MPa	%	J	–196 °C
As welded	420	680	40	120	80
15 h 650° C / air				120	70

Welding instruction

Hold stick electrode as vertically as possible, only very little weaving. Fill end crater carefully. Interpass temperature max. 150° C. Redry electrode for 2 – 3 h / 250 – 300° C.

Welding positions



Current type DC (+)

Approvals

TÜV (No. 00230), KTA, ABS, GL, BV, DNV

Recommended welding parameters

Electrodes Ø x L [mm]	2,0 x 250	2,5 x 300	3,2 x 300	4,0 x 350	5,0 x 400
Amperage [A]	35 – 50	50 – 70	70 – 95	90 – 120	120 – 160