UTP 068 HH

basic-coated NiCrFe stick electrode

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

Characteristics and field of use

UTP 068 HH is predominantly used for joining identical or similar heat-resistant Ni-base alloys, heat-resistant austenites, such as 2.4817 (LC NiCr15Fe), 1.4876 (X10 NiCrTiAl 32 20), 1.4941 (X8 CrNTi 18 10). Specially used for joining of high carbon containing 25/35 CrNi cast steel to 1.4859 or 1.4876 for petrochemical installations with working temperatures up to 900° C.

Furthermore UTP 068 HH can be used for repair welding of hardly weldable steels such as heat-treatable steels or tool steels. Additionally mixed joints of austenitic and ferritic materials with elevated service temperatures can be welded.

The welding deposit of UTP 068 HH is hot-cracking-resistant, does not tend to embrittlement and is 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

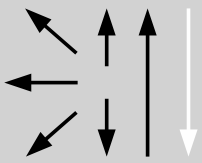
Mechanical properties of the weld metal

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