

Classifications

EN ISO 14172	AWS A5.11	Material-No.
E Ni 2061 (NiTi3)	E Ni-1	2.4156

Characteristics and field of use

UTP 80 Ni is suited for joining and surfacing on commercial pure nickel grades, including LC nickel, nickel alloys and nickel-clad steels. These materials are employed primarily in the construction of pressure vessels and apparatus in the chemical industry, in the food industry and for power generation, where good behaviour under corrosion and temperature is demanded.

UTP 80 Ni is weldable in all positions, except vertical-down, and gives smooth, notch-free seams.

Typical analysis in %

C	Si	Mn	Ni	Ti	Al	Fe
< 0,02	0,8	0,25	balance	2,0	0,2	0,1

Mechanical properties of the weld metal

Yield strength $R_{P0,2}$	Tensile strength R_m	Elongation A	Impact strength K_V
MPa	MPa	%	J
> 300	> 450	> 30	> 160

Welding instruction

Weld with dry stick electrodes only! Prior to welding the stick electrodes must be dried 2 – 3 hours at 250 – 300° C. Clean the weld zone thoroughly. The V angle of the seam should not be less than 70°. Weld with short arc, avoiding weaving as much as possible.

Welding positions



Approvals

TÜV (No. 00190)

Recommended welding parameters

Electrodes $\varnothing \times L$ [mm]	2,5 x 300*	3,2 x 300	4,0 x 350
Amperage [A]	60 – 85	90 – 130	110 – 150

*available on request