

UTP A 80 M

nickel alloys

Classifications

TIG rod

EN ISO 18274	AWS A5.14	Material-No.
S Ni 4060 (NiCu30Mn3Ti)	ER NiCu-7	2.4377

Characteristics and field of use

UTP A 80 M is suitable for joining and surfacing of nickel-copper alloys and of nickel-copper-clad steels. Particularly suited for the following materials: 2.4360 NiCu30Fe, 2.4375 NiCu30Al.

UTP A 80 M is also used for joining different materials, such as steel to copper and copper alloys, steel to nickel-copper alloys. These materials are employed in high-grade apparatus construction, primarily for the chemical and petrochemical industries. A special application field is the fabrication of seawater evaporation plants and marine equipment.

The weld metal has an excellent resistance to a large amount of corrosive medias, from pure water to nonoxidising mineral acids, alkali and salt solutions.

Typical analysis in %

C	Si	Mn	Cu	Ni	Ti	Fe
< 0.02	0.3	3.2	29.0	balance	2.4	1.0

Mechanical properties of the weld metal

<i>Yield strength $R_{p0.2}$</i>	<i>Tensile strength R_m</i>	<i>Elongation A</i>	<i>Impact strength K_V</i>
<i>MPa</i>	<i>MPa</i>	<i>%</i>	<i>J [RT]</i>
> 300	> 480	> 30	> 80

Welding instructions

Clean the weld area thoroughly to avoid porosity. Opening groove angle about 70 °. Weld stringer beads.

Approvals

TÜV (No. 00249), ABS, GL

Form of delivery and recommended welding parameters

<i>Rod diameter x length [mm]</i>	<i>Current type</i>	<i>Shielding gas (EN ISO 14175)</i>
1.6 x 1000	DC (-)	I 1
2.0 x 1000	DC (-)	I 1
2.4 x 1000	DC (-)	I 1
3.2 x 1000	DC (-)	I 1