

UTP A 80 M		nickel alloys				
Classifications		solid wire				
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 according to EN ISO 15792-1 (min. values at RT)						
<i>Yield strength $R_{p0.2}$</i>		<i>Tensile strength R_m</i>		<i>Elongation A</i>		<i>Impact strength K_V</i>
MPa		MPa		%		J (RT)
> 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. 00250), ABS, GL						
Form of delivery and recommended welding parameters						
<i>Wire diameter [mm]</i>		<i>Current type</i>		<i>Shielding gas (EN ISO 14175)</i>		
0.8*		DC (+)		I 1 I 3 Z-ArHeHC-30 / 2 / 0.05		
1.0		DC (+)		I 1 I 3 Z-ArHeHC-30 / 2 / 0.05		
1.2		DC (+)		I 1 I 3 Z-ArHeHC-30 / 2 / 0.05		
*available on request						