

Classifications

Material-No.	EN ISO 14172	AWS A5.11 / SFA-5.11
2.4366	E Ni 4060 (NiCu30Mn3Ti)	ENiCu-7

Characteristics and typical fields of application

UTP 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 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.

UTP 80 M is weldable in all positions, except vertical-down. Smooth, stable arc. The slag is easily removed, the seam surface is smooth. The weld metal withstands sea water.

Typical analysis

	C	Si	Mn	Ni	Ti	Fe	Cu	Al
wt.-%	< 0.05	0.7	3.0	bal.	0.7	1.0	29.0	0.3

Mechanical properties of all-weld metal - typical values (min. values)

Yield strength $R_{p0.2}$	Tensile strength R_m	Elongation A ($L_0=5d_0$)	Impact energy ISO-V KV J
MPa	MPa	%	J
> 300	> 480	> 30	> 80

Operating data

	Polarity	DC +	Dimension mm	Current A
	Redrying	2-3 h / 200 °C	2.5 × 300	55 – 70
			3.2 × 350	75 – 110
			4.0 × 350	90 – 130

Welding instructions

Thorough cleaning of the weld zone is essential to avoid porosity. V angle of seam about 70°, weld string beads if possible. Weld with dry stick electrodes only! Redry stick electrodes 2 – 3 hours at 200° C.

Approvals

TÜV (No. 00248), ABS, DNV