

# UTP A 34 N

copper alloys

## Classifications

TIG rod

EN ISO 24373	AWS A5.7	Material-No.
S Cu 6338 (CuMn13Al8Fe3Ni2)	ER CuMnNiAl	2.1367

## Characteristics and field of use

UTP A 34 N is applied in TIG joining and surfacing on complex aluminium bronzes mainly on such materials with a high Mn content as well as on steel and cast steel by using a nodular iron rod. Because of the excellent resistance to seawater and general corrosion resistance, the alloy is excellently suited in the shipbuilding industry (propellers, pumps and armatures) and in the chemical industry (valves, slides, pumps) and is mainly for applications subjected to chemical attacks combined with erosion. Because of the good friction coefficient it is suited for surfacing on waves, gliding surfaces, bearing and matrix of all sorts.

UTP A 34 N is very good weldable in the TIG process. The weld deposit has excellent mechanical properties and is tough and crack resistant. Very good chip removal machining, corrosion resistant and non magnetic.

## Typical analysis of rod and wire in %

Mn	Ni	Cu	Al	Fe
13.0	2.5	balance	7.5	2.5

## Mechanical properties of the weld metal

Yield strength $R_{p0.2}$ MPa	Tensile strength $R_m$ MPa	Elongation $A_5$ %	Hardness HB	El. conductivity $\frac{S \cdot m}{mm^2}$	Melting range °C
400	650	15	220	3 – 5	945 – 985

## Welding instructions

Clean weld area thoroughly (metallic bright). Preheating temperature of large weldments to approx. 150°C. Heat-input should be kept low and the interpass temperature should not exceed 150°C.

## Form of delivery and recommended welding parameters

Rod diameter x length [mm]	Current type	Shielding gas (EN ISO 14175)
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