

UTP A 8036 S

nickel alloys

Classifications

TIG rod

Special alloy

Characteristics and field of use

UTP A 8036 S is an alloy of the same composition as the base material and used for welding cast alloys with a nickel content of 34 – 40 % (INVAR qualities). The special operational area is the structural welding of housings made of plate and cast pieces with a nickel content of 36 %. Application field: air plane construction.

The weld metal contains high mechanical properties and a very low expansion coefficient.

Typical analysis in %

C	Si	Mn	P	S	Ni	Fe
0.015-0.025	0.1	0.3	< 0.01	< 0.01	34.0-38.0	balance

Mechanical properties of the weld metal

<i>Yield strength</i> $R_{p0.2}$ MPa	<i>Tensile strength</i> R_m MPa	<i>Elongation A</i> %	<i>Impact strength</i> K_V J	<i>Hardness</i> HB
> 280	> 350	> 25	> 80	appr. 150

Welding instructions

Thorough cleaning of welding area is essential. Welding parameters need to be adjusted to each individual application. Pay attention to a low heat input. The weld should be performed by applying a pulsed technique.

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>
2.0 x 1000*	DC (-)	I 1
2.4 x 1000*	DC (-)	I 1

*available on request