

## Classifications

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

Yield strength $R_{P0.2}$	Tensile strength $R_m$	Elongation A	Impact strength $K_v$	Hardness
MPa	MPa	%	J (RT)	HB
> 280	> 350	> 25	> 80	appr. 150

## Welding instruction

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 arc technique.

Wire diameter [mm]	Current type	Shielding gas (EN ISO 14175)
1.2	DC (+)	M 12