

# UTP A 3545 Nb

TIG rod

## Classifications

high-alloyed

EN ISO 14343-A:

WZ 35 45 Zr

## Characteristics and field of use

UTP A 3545 Nb is suitable for joining and surfacing on identical and similar high heat resistant cast alloys (centrifugal- and mould cast parts), such as G X-45NiCrNbSiTi 45 35.

The main application field is for tubes and cast parts of reformer and pyrolysis ovens at temperatures up to 1175° C / air.

### Welding characteristics and special properties of the weld metal

The weld deposit is applicable in a low sulphur, carbon enriching atmosphere up to 1175° C and has an excellent creep strength and a good resistance against carburization and oxidation.

### Welding instruction

Clean welding area carefully. No pre-heating or post weld heat treatment. Keep heat input as low as possible and interpass temperature at max. 150° C.

## Typical composition of welding rod (Wt-%)

C	Si	Mn	Cr	Ni	Nb	Ti	Zr	Fe
0.45	1.5	0.8	35.0	45.0	1.0	0.1	0.05	balance

## Mechanical properties of all-weld metal

Heat Treatment	Yield strength	Tensile strength	Elongation	Impact values
	0.2%	( $L_0=5d_0$ )		in J CVN
	MPa	MPa	%	
untreated	450	650	8	

## Operating data



Polarity = -

Shielding gas:  
I1

## Dimensions (mm)

2.0

2.4

3.2