

UTP A 3545 Nb

nickel alloys

Classifications

TIG rod

EN ISO 18274

S Ni Z (NiCr36Fe15Nb0.8)

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 GX-45NiCrNbSiTi45 35. The main application field is tubes and cast parts of reformer and pyrolysis ovens.

The weld deposit is applicable in low-sulphur, carbon-enriching atmosphere up to 1,175 °C. It yields excellent creep strength and a good resistance against carburization and oxidation.

Typical analysis in %

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

Mechanical properties of the weld metal

<i>Yield strength $R_{p0.2}$</i>	<i>Tensile strength R_m</i>
<i>MPa</i>	<i>MPa</i>
450	650

Welding instructions

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

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
3.2 x 1000	DC (-)	I 1

GTAW – TIG rods

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