

Classifications

EN ISO 14172

E Ni Z 6701 (NiCr35Fe15Nb0,8)

Characteristics and typical fields of application

UTP 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-X45NiCrNbSiTi45 35. The main application field is tubes and cast parts of reformer and pyrolysis ovens.

Properties of the weld metal

The weld deposit is used in low-sulphur, carburizing atmosphere up to 1,175°C.

Typical analysis

	C	Si	Mn	Cr	Ni	Nb	Fe
wt.-%	0.45	1.0	0.8	35.0	45.0	0.9	Bal.

Mechanical properties of all-weld metal - typical values (min. values)

Yield strength $R_{p0.2}$	Tensile strength R_m
MPa	MPa
480	680

Operating data

	Polarity	DC+	Dimension mm	Current A	
				2.5 × 300	70 – 90
				3.2 × 350	90 – 110
				4.0 × 350	100 – 140

Welding instructions

Clean weld area thoroughly. Weld the stick electrode with a slight tilt and a short arc. No pre-heating or post weld heat treatment required. Keep heat input as low as possible and interpass temperature of max. 150°C.

Re-baking: 2 - 3 hours at 250 – 300°C

Approvals

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