

Classifications TIG rod

EN ISO 14343-A	AWS A5.9	Material-No.
W 19 9 Nb Si	ER 347 (Si)	1.4551

Characteristics and field of use

UTP A 68 is suitable for joining and surfacing in chem. apparatus and vessel construction for working temperatures of – 196 °C up to 400 °C.

Base materials

1.4550	X6 CrNiNb 18-10
1.4541	X6CrNiTi 18-10
1.4552	G-X5 CrNiNb 18-10
1.4311	X2 CrNiN 18-10
1.4306	X2 CrNi 19-11

AISI 347, 321, 302, 304, 3046, 304LN
 ASTM A 296 Gr. CF 8 C, A 157 Gr. C 9

Typical analysis in %

C	Si	Mn	Cr	Ni	Nb	Fe
0.05	0.4	1.5	19.5	9.5	0.55	balance

Mechanical properties of the weld metal

<i>Yield strength $R_{p0.2}$</i>	<i>Tensile strength R_m</i>	<i>Elongation A</i>	<i>Impact strength K_V</i>
<i>MPa</i>	<i>MPa</i>	<i>%</i>	<i>J [RT]</i>
420	600	30	100

Welding instructions

Degrease and clean weld area thoroughly (metallic bright). Preheating and post heat treatment are usually not necessary.

Approvals

TÜV (No. 04866)

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>
1.0 x 1000*	DC (–)	I 1
1.6 x 1000	DC (–)	I 1
2.0 x 1000	DC (–)	I 1
2.4 x 1000	DC (–)	I 1
3.2 x 1000*	DC (–)	I 1

*available on request