

Classifications

EN ISO 14343-A	AWS A5.9 / SFA-5.9
W Z 18 16 1 Cu H	ER G

Characteristics and typical fields of application

TIG rod and wire of W Z 18 16 1 Cu H type for joining and surfacing on matching austenitic creep resistant steels and cast steel grades. For manual and mechanised TIG applications. Good high temperature corrosion resistance.

Base materials

1.4907 X10CrNiCuNb18-9-3 and similar creep resistant austenitic steels such as Super 304 H and DMV 304 HCu 18Cr-9Ni-3Cu-Nb-N ASME SA-213; code case 2328-1

Typical analysis

	C	Si	Mn	Cr	Ni	Mo	Nb	N	Cu
wt.-%	0.1	0.4	3.2	18	16.0	0.8	0.4	0.2	3.0

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

Condition	Yield strength $R_{p0.2}$	Tensile strength R_m	Elongation A ($L_0=5d_0$)	Impact energy ISO-V KV J
	MPa	MPa	%	20°C
u	380 (≥ 350)	590 (≥ 550)	(≥ 25)	(≥ 47)

u untreated, as-welded – shielding gas Ar

Operating data

	Polarity	DC- (DC+)	Dimension mm
	Shielding gas (EN ISO 14175)	I1	0.8
			1.0
			1.2
			2.0 × 1000
			2.4 × 1000

Heat input is max. 2.0 kJ/mm, interpass temperature max. 150°C. Preheating and post-weld heat-treatment not necessary.

Approvals

TÜV (11219), CE