

Classifications

EN ISO 14343-A

W Z21 33 MnNb

Characteristics and typical fields of application

GTAW rod for joining and surfacing of heat resistant steels and cast steels of the same or similar chemical composition. Suitable for operating temperatures up to +1050 °C dependence to the atmosphere. Typical alloy for welding of pyrolysis furnace tubes.

Atmosphere:

max. application temperature °C

Sulphure free **max. 2 g S / Nm³**

Air and oxidizing combustion gases.

1050

1000

Reducing combustion gases.

1000

950

Base materials

1.4876 X10NiCrAlTi32-21

1.4859 GX10NiCrSiNb32-20

1.4958 X5NiCrAlTi31-20

1.4959 X8NiCrAlTi32-21

Alloy 800 H, UNS N08800, N08810, N08811

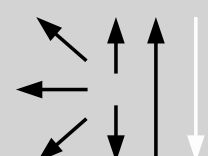
Typical analysis of the TIG rods (wt.-%)

	C	Si	Mn	Cr	Ni	Nb
wt-%	0.12	0.2	4.8	21.8	32.5	1.2

Mechanical properties of all-weld metal

Condition	Yield strength R _{p0.2}	Tensile strength R _m	Elongation A (L ₀ =5d ₀)	Impact work ISO-V KV J
	MPa	MPa	%	+20 °C
	≥ 400	≥ 600	≥ 17	≥ 50

Operating data

	Polarity: DC (-)	Shielding gas: 100 % Argon	Rod marking: front: ⚡ W Z21 33 MnNb back: 1.4850 (mod.)	ø (mm) 2.0 2.4 3.2
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