

Classifications

EN ISO 14343-A

G Z21 33 MnNb

Characteristics and typical fields of application

GMAW wire 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 depending on the atmosphere. Typical alloy for welding of pyrolysis furnace tubes.

Atmosphere:	max. application temperature °C	
	sulphur free	max. 2 g S / Nm ³
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 solid wire (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

untreated, as welded – shielding gas Argon + 2.5 % CO₂

Operating data

	Polarity:	Shielding gases:	ø (mm)
	DC (+)	Argon + 2.5 % CO ₂	1.0
			1.2