

Classifications

EN ISO 14343-A	AWS A5.9 / SFA-5.9
GZ 13	ER410 (mod.)

Characteristics and typical fields of application

Stainless solid wire, corrosion-resistant similar to matching 13 % Cr(Ni) steels / cast steel grades. For surfacing applications with matching or similar 13 % Cr steels/cast steel grades. For surfacing sealing faces of water, steam and gas valves and accessories made of unalloyed and low-alloy steels/cast steel grades for service temperatures up to 450 °C (842 °F).

Base materials

1.4006 – X10Cr13; 1.4000 – X6Cr13; AISI 410, 420

Typical analysis

	C	Si	Mn	Cr	Ni
wt.-%	0.08	0.9	0.65	14.0	0.4

Structure: Martensite with part ferrite, suitable for quenching and tempering

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

Condition	Yield strength $R_{p0.2}$	Tensile strength R_m	Elongation A ($L_0=5d_0$)	Hardness	
	MPa	MPa	%	HB	HRC
s	450 (≥ 250)	650 (≥ 450)	≥ 15	180	
u					35

s heat treated, 680°C / 8h

u untreated, as welded

Operating data

	Polarity	DC +	Dimension mm	
	Shielding gas (EN ISO 14175)		M12	1.0
			M13	1.2

Recommended pre-heating temperature 200 – 400 °C (392 – 752°F) depending on wall thickness. Cooling to around 120 °C (248 °F), then tempering or quenching and tempering.

Approvals

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