

Classifications

EN ISO 14343-A	EN ISO 14343-B	AWS A5.9 / SFA-5.9
G 13 4	SS(410NiMo)	ER410NiMo (mod.)

Characteristics and typical fields of application

Solid wire of G 13 4 / ER410NiMo (mod.) type for joining and surfacing applications with matching 13Cr(Ni) and 13Cr-steels and cast steel grades. Soft-martensitic; suitable for quenching and tempering. High resistance to corrosion fatigue cracking. Corrosion resistance similar to matching 13Cr(Ni)-steels and cast steel grades.

Base materials

1.4313 X3CrNiMo13-4, 1.4317 GX4CrNi13-4
1.4407 GX5CrNiMo13-4, 1.4414 GX4CrNiMo13-4
ACI Grade CA 6 NM, UNS S41500

Typical analysis

	C	Si	Mn	Cr	Ni	Mo
wt.-%	0.01	0.7	0.7	12.3	4.7	0.5

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

Condition	Yield strength	Tensile strength R_m	Elongation A ($L_0=5d_0$)	Impact energy ISO-V KV J		Hardness	
	MPa	MPa	%	20°C	-20°C		
u	950 (≥ 500)	1250 (≥ 750)	12 (≥ 10)	≥ 32	-	-	38
a	730 (≥ 500)	850 (≥ 750)	17 (≥ 15)	80 (≥ 47)	≥ 47	250	-

u untreated, as welded - shielding gas Ar + 8% CO₂

a annealed - shielding gas Ar + 8% CO₂, 580°C for 8 h / cooling in oven to 300°C followed by air cooling

Operating data

	Polarity	DC+	Dimension mm
	Shielding gas (EN ISO 14175)	M12	1.0
		M13 M20	1.2

Preheating and interpass temperatures of heavy-wall components 100 – 150°C. Maximum heat input 1.5 kJ/mm. Post-weld heat treatment at 580 – 620°C.

Shielding gas: Ar + 2 – 3% CO₂, Ar + 8 – 10% CO₂, Ar + 2% O₂.

Approvals

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