

## 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	
	$R_{p0.2}$	MPa	%	20°C	-20°C	HB30	HRC
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% CO<sub>2</sub>

a annealed - shielding gas Ar + 8% CO<sub>2</sub>, 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% CO<sub>2</sub>, Ar + 8 – 10% CO<sub>2</sub>, Ar + 2% O<sub>2</sub>.

## Approvals

-