

## Classifications

EN ISO 14343-A	EN ISO 14343-B	AWS A5.9
W 13 4	SS(410NiMo)	ER410NiMo (mod.)

## Characteristics and typical fields of application

GTAW rod of low-carbon type 13 % Cr 4 % Ni suited for soft-martensitic steels like 1.4313 / CA 6 NM. Designed with precisely tuned alloying composition creating a weld deposit featuring very good ductility, CVN toughness and crack resistance despite its high strength.

For applications like hydro- and steam turbines, corrosion resistant against water and steam.

## Base materials

1.4317 GX4CrNi13-4, 1.4313 X3CrNiMo13-4, 1.4407 GX5CrNiMo13-4, 1.4414 GX4CrNiMo13-4  
ACI Gr. CA6NM

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

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

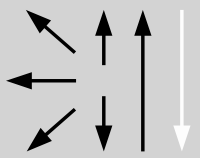
## Mechanical properties of all-weld metal

Condition	Yield strength R <sub>p0,2</sub>	Tensile strength R <sub>m</sub>	Elongation A (L <sub>0</sub> =5d <sub>0</sub> )	Impact work ISO-V KV J	
	MPa	MPa	%	+20 °C	-60 °C
u	<b>915</b>	<b>1000</b>	<b>15</b>	<b>85</b>	
a	<b>750 (≥ 500)</b>	<b>830 (≥ 750)</b>	<b>21 (≥ 15)</b>	<b>150</b>	≥ 32

u untreated, as welded – shielding gas Argon

a annealed, 600 °C / 8 h / furnace down to 300 °C / air – shielding gas Argon

## Operating data

	<b>Polarity:</b> DC ( - )	<b>Shielding gas:</b> 100 % Argon	<b>Rod marking:</b> front: ✦ W 13 4 back: -	<b>∅ (mm)</b> 2.0
				<b>∅ (mm)</b> 2.4

Preheating and interpass temperatures in case of thick-walled sections 100 – 160 °C. Maximum heat input 15 kJ/cm. Tempering at 580 – 620 °C.

## Approvals

TÜV (04110.), SEPROZ, CE