

Solid Wire Rod for TIG Welding

BA-TIG 410NiMo

Classification: EN ISO 14343-A: **W 13 4**
SFA-5.9: **ER410NiMo**

Main Application:

BA-TIG 410NiMo is a solid wire rod for GTAW, suitable for welding 13/4 chromium-nickel steels, high strength martensitic steels. Weld metal has good resistance to corrosion, hydrocavitation and sulphide induced stress corrosion cracking. Main application is overlay mild and low alloy steels. Also used in Turbines, Valve bodies, High pressure piping, Offshore, Power generation. Grade 410NiMo steels are self-hardening steels and usually require pre-heating and stress relieving treatments in order to obtain adequate ductility.

Typical analysis and chemical composition acc. to EN ISO 14343-A and AWS A5.9: (Weight Percent)

Wire rod	C	Si	Mn	Mo	Ni	Cr	P	S	Cu total
Typical analysis BA-TIG 410NiMo	0.03	0.35	0.4	0.6	4.5	12.0	0.015	0.015	0.2
W 13 4 acc. to ISO 14343-A	0.05	1.0	1.0	0.4-1.0	3.0-5.0	11.0-14.0	0.03	0.02	0.5
ER410NiMo acc. to AWS A5.9	0.06	0.5	0.6	0.4-0.7	4.0-5.0	11.0-12.5	0.03	0.03	0.75

All - Weld Metal Mechanical Properties / Welding Data:

Heat Treatment	PWHT: 600°C x 2h
Yield Strength Re, N/mm ² (ksi)	≥ 560 (81)
Tensile Strength Rm, N/mm ² (ksi)	≥ 760 (110)
Elongation A5 [%]	≥ 15
Impact Energy ISO-V, J (ft lbs)	+20°C: 47 (34)
Current/polarity	DC -
Shielding Gas	ISO 14175: I1

Base Materials:

1.4407 (G-X5CrNiMo13-4), 1.4414 (G-X4CrNiMo13-4), 1.4313 (X4CrNi13-4), 1.4413 (X3CrNiMo13-4)

Package Forms:

5 kg carton boxes as standard package form for GTAW wire rods.

Diameter:

1,6 – 2,4 mm. Sizes and tolerances acc. to ISO 544 and AWS A5.9.

Wire Rod Surface:

Smooth finish free from surface defects and foreign matter.