

Techalloy® 410NiMo

AWS ER410



CONFORMANCES

AWS A5.9 ER410NiMo
 UNS S41086
 ISO 14343: 2009 (13 4)

Techalloy® 410NiMo is designed to weld materials of similar chemical composition in cast and wrought forms. This electrode is also used to overlay mild and low alloy steels. Preheat and inter-pass temperatures of not less than 300°F (150°C) are recommended during welding. Post-weld heat treatment should not exceed 1150°F (620°C) as higher temperatures may result in hardening.

Applications: Turbines, Valve bodies, High pressure piping, Offshore, Power generation

DIAMETERS / PACKAGING

Diameter in (mm)		MIG WIRE 33 lb (14.9 kg) Wire Basket	TIG 10 lb (4.5 kg) 30 lb (13.6 kg) Master Carton	SAW WIRE 60 lb (27.2 kg) Coil
0.035	(0.9)	MG410NM035667		
0.045	(1.2)	MG410NM045667		
1/16	(1.6)		TG410NM062638	
3/32	(2.4)		TG410NM093638	
1/8	(3.2)			SA410NM125726

DEPOSIT COMPOSITION

	%C	%Cr	%Ni	%Mo	%Mn
Requirements AWS ER410NiMo	0.06 max.	11.0 - 12.5	4.0 - 5.0	0.4 - 0.7	0.6 max.
Typical Performance Techalloy® 410NiMo	0.02	11.7	4.7	0.5	0.2
	%Si	%P	%S	%Cu	
Requirements AWS ER410NiMo	0.5 max.	0.03 max.	0.03 max.	0.75 max.	
Typical Performance Techalloy® 410NiMo	0.2	0.01	0.002	0.06	

TYPICAL OPERATING PROCEDURES

Process	Diameter in (mm)	Voltage (volts)	Amperage	Gas Flow	Gas
MIG	0.035 (0.9) 0.045 (1.2)	26-29 28-32	160-210 180-250	30-50 CFH	98/99% Argon + 2/1% Oxygen 97% Argon + 3% CO ₂
TIG	1/16 (1.6) 3/32 (2.4)		60-85 120-175	20-40 CFH	100% Argon
SAW	1/8 (3.2)	29-32	350-450		Lincolnweld® P2007

Material Safety Data Sheets (MSDS) are available on our website at www.techalloy.com

TEST RESULTS

Test results for mechanical properties, deposit or electrode composition and diffusible hydrogen levels were obtained from a weld produced and tested according to prescribed standards, and should not be assumed to be the expected results in a particular application or weldment. Actual results will vary depending on many factors, including, but not limited to, weld procedure, plate chemistry and temperature, weldment design and fabrication methods. Users are cautioned to confirm by qualification testing, or other appropriate means, the suitability of any welding consumable and procedure before use in the intended application.

CUSTOMER ASSISTANCE POLICY

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