Techalloy® 410

AWS ER410

CONFORMANCES

AWS A5.9 ER410
UNS S41080
ISO 14343: 2009 13

Techalloy® 410 is designed to weld stainless steels of similar chemical composition as well as to overlay carbon steels to impart corrosion, erosion and abrasion resistance. This material, being an air-hardening type, calls for a pre-heat and inter-pass temperature of not less that 400°F (200°C) during welding.

Applications: Surfacing steel mill rolls, Furnace and burner parts, Turbine parts

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
0.035	(0.9)	MG410035667	
*0.045	(1.2)	MG410045667	
1/16	(1.6)		TG410062638
3/32	(2.4)		TG410093638
1/8	(3.2)		TG410125638

*Bulk packages available - Contact Lincoln Electric

Publication C14.10.58 | Issue Date 06/13
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LINCOLN ELECTRIC
THE WELDING EXPERTS®

DEPOSIT COMPOSITION

	%C	%Cr	%Ni	%Mo	%Mn
Requirements AWS ER410	0.12 max.	11.5 - 13.5	0.6 max.	0.75 max.	0.6 max.
Typical Performance Techalloy® 410	0.11	12.5	0.1	0.03	0.45
	%Si	**%P**	**%S**	**%Cu**	
Requirements AWS ER410	0.5 max.	0.03 max.	0.03 max.	0.75 max.	
Typical Performance Techalloy® 410	0.39	0.01	0.01	0.14	

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) 1/8 (3.2)		90 - 130 120 - 175 150 - 220	20-40 CFH	100% Argon

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

The Lincoln Electric Company is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or advice about their use of our products. Our employees respond to inquiries to the best of their ability based on information provided to them by the customers and the knowledge they may have concerning the application. Our employees, however, are not in a position to verify the information provided or to evaluate the engineering requirements for the particular weldment. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or advice. Moreover, the provision of such information or advice does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or advice, including any implied warranty of merchantability or any warranty of fitness for any customers' particular purpose is specifically disclaimed.

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Subject to Change – This information is accurate to the best of our knowledge at the time of printing. Please refer to www.lincolnelectric.com for any updated information.

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