

Tech-Rod[®] 410

AWS E410-16

CONFORMANCES

AWS A5.4 E410-16

ASME SFA-A5.4 E410-16



Tech-Rod[®] 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 than 400°F (200°C) during welding.

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

DIAMETERS / PACKAGING

Diameter in (mm)	Length in (mm)	10 lb (4.5 kg) Tube 30 lb (13.6 kg) Master Carton
1/8 (3.2)	14 (355)	EL41016125634
5/32 (4.0)	14 (355)	EL41016156634
3/16 (4.8)	14 (355)	EL41016187634

DEPOSIT COMPOSITION

	%C	%Cr	%Ni	%Mo	%Mn
Requirements AWS E410-16	0.12 max.	11.0 - 13.5	0.7 max.	0.75 max.	1.0 max.
Typical Results Tech-Rod® 410	0.08	12.2	0.2	0.01	0.7
	%Si	%P	%S	%Cu	
Requirements AWS E410-16	0.90 max.	0.04 max.	0.03 max.	0.75 max.	
Typical Results Tech-Rod® 410	0.40	0.02	0.01	0.06	

* Nitrogen in these weld deposits is usually between 0.04% and 0.08%

TYPICAL OPERATING PROCEDURES

Diameter in (mm)	Length in (mm)	Amperage	
		Flat	Vertical & Overhead
1/8 (3.2)	14 (355)	85-110	80-90
5/32 (4.0)	14 (355)	110-140	100-120
3/16 (4.8)	14 (355)	120-160	110-130

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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