

SUPERCORE™ 410NIMO

Martensitic Stainless ■ AWS E410NiMoT1-1/4

KEY FEATURES

- Developed for joining 410NiMo martensitic stainless steels
- Designed for sub-zero toughness and high strength with an improved resistance to corrosion and hydro-cavitation
- Smooth arc performance in all positions

WELDING POSITIONS

All

SHIELDING GAS

80% Argon / 20% CO₂ or 100% CO₂

CONFORMANCES

AWS 5.22	E410NiMoT1-1/4
BS EN ISO 17633-A	T 13 4 P C/M 2
BS EN ISO 17633-B	TS410NiMo-FB1

TYPICAL APPLICATIONS

- Power Generation
- Compressor Cones
- High Pressure Piping
- Offshore Oil
- Petrochemical & Chemical Industries

DIAMETERS / PACKAGING

Diameter mm (in)	15 kg (33.1 lb) Spool
1.2 (0.045)	SC410NIMO-12
1.6 (1/16)	SC410NIMO-16

MECHANICAL PROPERTIES⁽¹⁾ – As Required per AWS A5.22

	Yield Strength ⁽²⁾ MPa (ksi)	Tensile Strength MPa (ksi)	Elongation %	Charpy V-Notch J (ft-lbf)		Hardness HV
				@20°C (68°F)	@-40°C (-40°F)	
Requirements AWS E410NiMoT1-1/4	500 (73) min	760 (110) min	15 min	-	-	-
Typical Performance⁽³⁾ After 1 hour PWHT at 610°C (1130°F)	850 (123)	940 (136)	20	45	30	330

DEPOSIT COMPOSITION⁽¹⁾ – As Required per AWS A5.22

	%C	%Mn	%Si	%S	%P
Requirements AWS E410NiMoT1-1/4	0.06 max	1.0 max	1.0 max	0.025 max	0.030 max
Typical Performance⁽³⁾	0.03	0.7	0.4	0.005	0.017
	%Cr	%Ni	%Mo	%Cu	%Co
Requirements AWS E410NiMoT1-1/4	11.0-12.5	4.0-5.0	0.4-0.7	0.3 max	0.05 max
Typical Performance⁽³⁾	11.8	4.5	0.5	0.03	0.03

TYPICAL OPERATING PROCEDURES

Diameter mm (in)	Polarity	Amp Range	Volt Range	Typical	Stickout mm (in)
1.2 (0.045)	DC+	150-280A	22-34V	180A, 29V	15-25 (5/8-1)
1.6 (1/16)	DC+	200-350A	26-34V	260A, 30V	15-25 (5/8-1)

⁽¹⁾ Typical all weld metal ⁽²⁾ Measured with 0.2% offset ⁽³⁾ See test results disclaimer ⁽⁴⁾ Preferred polarity is listed first.

IMPORTANT: SPECIAL VENTILATION AND/OR EXHAUST REQUIRED

Fumes from the normal use of some welding products can contain significant quantities of components - such as chromium and manganese - which can lower the 5.0 mg/m³ maximum exposure guideline for general welding fume.

BEFORE USE, READ AND UNDERSTAND THE MATERIAL SAFETY DATA SHEET (MSDS) FOR THIS PRODUCT AND SPECIFIC INFORMATION PRINTED ON THE PRODUCT CONTAINER.

Material Safety Data Sheets (MSDS) and Certificates of Conformance are available on our website at www.lincolnelectric.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.

Lincoln Electric is a responsive manufacturer, but the selection and use of specific products sold by Lincoln Electric is solely within the control of, and remains the sole responsibility of the customer. Many variables beyond the control of Lincoln Electric affect the results obtained in applying these types of fabrication methods and service requirements.

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.