

Lincore[®] T & D

Metal-to-Metal

Typical Applications

- ▶ Punch dies
- ▶ Shear blades

Welding Positions

Flat & Horizontal

Key Features

- ▶ Delivers a deposit similar to H12 tool steel
- ▶ For build-up of tool steel dies and edges, or applying wear resistance surface on carbon or low alloy steels
- ▶ To be used on carbon steel, low alloy steel or tool steel

DIAMETERS / PACKAGING

Diameter in (mm)	25 lb (11.3 kg) Steel Spool
1/16 (1.6)	ED031134

MECHANICAL PROPERTIES⁽¹⁾

As-Welded	Rockwell Hardness (R _c)	
	Tempered at 540°C (1000°F)	
48 - 55	55 - 65	

DEPOSIT COMPOSITION⁽¹⁾

	%C	%Mn	%Si	%Al	%Cr	%Mo	%W
6 Layers Open Arc	0.65	1.5	0.8	1.8	7.0	1.4	1.6
6 Layers w/ 802 Flux	0.50	1.9	1.0	1.0	7.0	1.4	1.6

TYPICAL OPERATING PROCEDURES

Diameter, Polarity ESO - in (mm)	Wire Feed Speed m/min (in/min)	Voltage (Volts)	Approx. Current (Amps)	Deposition Rate kg/hr (lb/hr)
1/16 in (1.6 mm), DC+ 1-1/4 (32)	3.8 (150)	22	170	2.4 (5.4)
	5.1 (200)	23	210	3.6 (7.9)
	6.4 (250)	24	250	4.1 (8.9)
	7.6 (300)	25	270	4.9 (10.8)
	8.9 (350)	26	300	5.4 (12.0)

NOTE: Minimum preheat and interpass temperatures of 315°C (600°F) are essential for crack-free welding on mild steel or low alloy steel. For crack-free welding on tool steel parts, preheat of 538°C (1000°F) or higher may be necessary. After welding, very slow cooling to 121°C (250°F) is usually required. This can be followed by post-weld heat treating at 538° - 593°C (1000° - 1100°F) to develop maximum hardness.

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.

⁽¹⁾ Composition and properties depend upon dilution. Single layer deposit properties depend upon base metal and/or build-up material.

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.

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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.