ULTRACORE® 75C

Mild Steel, Flat & Horizontal · AWS E70T-5C-JH4

BUY AMERICA

KEY FEATURES

- Basic slag system offers improved crack resistance and impact properties compared to rutile products
- High deposition in the flat and horizontal positions
- H4 diffusible hydrogen levels
- Designed for welding with 100% CO_2 shielding gas
- Premium arc performance and bead appearance
- ProTech® foil bag packaging

WELDING POSITIONS

Flat & Horizontal

SHIELDING GAS

100% CO_2
Flow Rate: 40-55 CFH

CONFORMANCES

AWS A5.20:	E70T-5C-JH4
CWB/CSA W48:	E490T5-C1A4-CS1-H4 (E492T-5J-H4)
ISO 17632-B:	T49 4 T5-0 C1 A H5

TYPICAL APPLICATIONS

- Highly restrained joints
- Heaving equipment
- Mining
- Hard to weld base metals
- Thick steel sections in structural fabrication

DIAMETERS / PACKAGING

Diameter in (mm)	50 lb (22.7 kg) Coil
1/16 (1.6)	ED032974*
5/64 (2.0)	ED032975*
3/32 (2.4)	ED032940*

*Buy America Product

MECHANICAL PROPERTIES[1]

	Yield Strength[2] MPa (ksi)	Tensile Strength MPa (ksi)	Elongation %	Charpy V-Notch J (ft-lbf) @ -29°C (-20°F)	Charpy V-Notch J (ft-lbf) @ -40°C (-40°F)
Requirements[4] - AWS A5.20 E70T-5C-JH4	400 (58) min	480-655 (70-95)	22 min	27 (20) min	27 (20) min
Typical Results[3] As-Welded with 100% CO_2	465-510 (68-74)	545-580 (79-84)	29-32	91-142 (67-105)	53-113 (39-83)

DEPOSIT COMPOSITION[1]

	%C	%Mn	%Si	%S	%P	Diffusible Hydrogen (mL/100g weld deposit)
Requirements[4] - AWS A5.20 E70T-5C-JH4	0.12 max	1.75 max	0.90 max	0.03 max	0.03 max	4.0 max
Typical Results[3] As-Welded with 100% CO_2	0.06-0.08	1.51-1.66	0.44-0.53	0.01	0.01	2-4

TYPICAL OPERATING PROCEDURES – *Flat & Horizontal*

Diameter, Polarity Shielding Gas	CTWD[5] mm (in)	Wire Feed Speed m/min (in/min)	Voltage (volts)	Approx. Current (amps)	Melt-Off Rate kg/hr (lb/hr)	Deposition Rate kg/hr (lb/hr)	Efficiency (%)
1/16 in (1.6 mm), DC+ 100% CO_2	19-25 (3/4-1)	5.1 (200) 6.4 (250) 7.6 (300) 8.9 (350) 10.2 (400) 12.7 (500)	29-34 31-36 32-37 33-38 33-38 35-40	230 270 295 335 360 415	4.0 (8.7) 5.0 (11.0) 5.9 (13.1) 6.9 (15.2) 7.9 (17.4) 9.9 (21.8)	3.1 (6.9) 3.8 (8.5) 4.5 (10.0) 5.5 (12.1) 6.3 (13.9) 7.9 (17.5)	76-86
5/64 in (2.0 mm), DC+ 100% CO_2	25-32 (1-1 1/4)	5.1 (200) 6.4 (250) 7.6 (300) 8.9 (350) 10.2 (400)	29-34 30-35 32-37 33-38 34-39	295 345 390 425 465	5.7 (12.7) 7.2 (15.9) 8.6 (19.0) 10.1 (22.3) 11.5 (25.3)	4.8 (10.5) 6.0 (13.2) 7.1 (15.6) 8.5 (18.7) 9.9 (21.8)	82-86
3/32 in (2.4 mm), DC+ 100% CO_2	32 (1-3/8)	3.2 (125) 5.1 (200) 6.4 (250) 7.6 (300) 8.3 (325)	23-28 27-32 29-34 31-36 32-37	335 445 500 590 605	5.5 (12.2) 8.8 (19.3) 10.9 (24.1) 13.2 (29.2) 14.2 (31.4)	4.8 (10.7) 7.6 (16.7) 9.6 (21.3) 11.8 (26.0) 12.8 (28.3)	87-90

[1]Typical all weld metal. [2]Measured with 0.2% offset. [3]See test results disclaimer [4]As-Welded with 100% CO_2. [5]To estimate ESO, subtract 1/4 in (6.0 mm) from CTWD.

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

FUMES AND GASES can be hazardous to your health.

- Fumes from the normal use of this product contain significant quantities of potentially hazardous compounds. See consumable product label/insert.
- Keep your head out of the fumes.
- Use enough ventilation and local exhaust to keep fumes and gases from your breathing zone and the general area.
- An approved respirator should be used unless exposure assessments are below applicable exposure limits.

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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THE LINCOLN ELECTRIC COMPANY
22801 St. Clair Avenue ▪ Cleveland, OH ▪ 44117-1199 ▪ U.S.A.
Phone: +1.216.481.8100 ▪ www.lincolnelectric.com