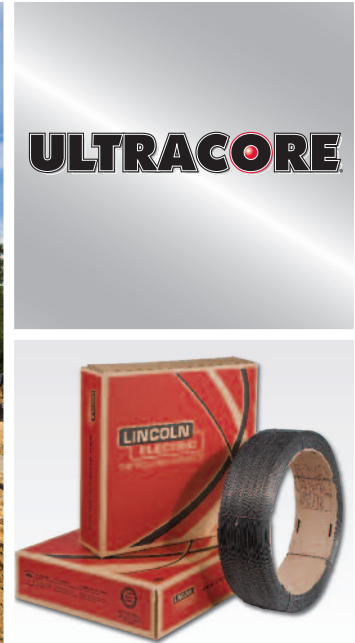


UltraCore® 70C

AWS E70T-1 H8, E70T-9 H8



UltraCore® 70C gas-shielded flux-cored wire is designed for low fume generation rates and controlled H8 diffusible hydrogen levels. It is recommended for both single or multiple pass welding in either semi-automatic or automatic applications. For high deposition rates, excellent bead stacking and low fume levels – choose UltraCore® 70C.

KEY FEATURES

- ▶ **Low Fume Generation Rates** – Increased cleanliness and visibility, as well as improved ability to control welding fume.
- ▶ **Excellent Bead Stacking and Slag Removal** – Reduces clean up time for multiple pass welding.
- ▶ **H8 Diffusible Hydrogen Levels** – Controlled for high resistance to hydrogen induced cracking.
- ▶ **High Deposition Rates** – Increased welding productivity.
- ▶ **ProTech™ Foil Bag Packaging System** – Uniquely packaged in a foil bag to protect UltraCore® wire from harmful moisture and contamination.

APPLICATIONS

- ▶ Structural Fabrication
- ▶ Heavy Equipment
- ▶ Ship Building

WELDING POSITIONS

Flat and Horizontal

CONFORMANCE

AWS A5.20/A5.20M: 2005

E70T-1 H8, E70T-9 H8



SHIELDING GASES

100% CO₂

DIAMETERS / PACKAGING

Diameter in. (mm)	50 lb (22.7 kg) Coil	500 lb (226.8 kg) Accu-Trak® Drum	500 lb (226.8 kg) Speed Feed® Drum
1/16 (1.6)	ED032978	ED033064	
5/64 (2.0)	ED032977		ED033065
3/32 (2.4)	ED032941		ED033066

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MECHANICAL PROPERTIES ⁽¹⁾ - As Required per AWS A5.20/A5.20M: 2005

	Yield Strength ⁽²⁾ MPa (ksi)	Tensile Strength MPa (ksi)	Elongation (%)	Charpy V-Notch J (ft•lbf)	
				@ -4°C (0°F)	@ -29°C (-20°F)
Requirements AWS E70T-1 H8 / E70T-9 H8 As-Welded with 100% CO ₂	400 (58) min.	485 - 655 (70 - 95)	22 min.	27 (20) min.	27 (20) min.
Typical Performance⁽³⁾ As-Welded with 100% CO ₂	485 - 520 (70 - 75)	555 - 590 (81 - 86)	28 - 30	47 - 72 (35 - 53)	28 - 47 (21 - 35)

DEPOSIT COMPOSITION ⁽¹⁾ - As Required per AWS A5.20/A5.20M: 2005

	%C	%Mn	%Si	%S	%P	Diffusible Hydrogen
						(mL/100g weld deposit)
Requirements AWS E70T-1 H8 / E70T-9 H8 As-Welded with 100% CO ₂	0.12 max.	1.75 max.	0.90 max.	0.03 max.	0.03 max.	8 max.
Typical Performance⁽³⁾ As-Welded with 100% CO ₂	0.04 - 0.05	1.46 - 1.59	0.54 - 0.59	≤0.01	≤0.01	5 - 8

⁽¹⁾ Typical all weld metal, DC+. ⁽²⁾ Measured with 0.2% offset. ⁽³⁾ See test results disclaimer below.

TYPICAL OPERATING PROCEDURES

Diameter, Polarity Shielding Gas	CTWD ⁽¹⁾ 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+ As-Welded with 100% CO ₂	25 (1)	3.2 (125)	23 - 27	170	2.4 (5.3)	2.1 (4.7)	84 - 89
		5.1 (200)	24 - 28	225	3.8 (8.4)	3.2 (7.1)	
		6.4 (250)	25 - 30	260	4.8 (10.5)	4.1 (9.0)	
		7.6 (300)	27 - 31	280	5.7 (12.6)	4.9 (10.8)	
		9.5 (375)	28 - 32	320	7.1 (15.7)	6.1 (13.5)	
5/64 in. (2.0 mm), DC+ As-Welded with 100% CO ₂	25 (1)	3.2 (125)	23 - 27	230	3.8 (8.4)	3.2 (7.1)	84 - 88
		4.4 (175)	24 - 29	305	5.4 (11.8)	4.6 (10.1)	
		5.7 (225)	25 - 30	365	6.8 (15.0)	5.9 (13.0)	
		6.4 (250)	26 - 32	385	7.7 (16.9)	6.5 (14.3)	
		7.6 (300)	27 - 33	420	9.0 (19.8)	7.8 (17.2)	
3/32 in. (2.4 mm), DC+ As-Welded with 100% CO ₂	25 (1)	3.2 (125)	26 - 33	350	5.4 (11.9)	4.7 (10.3)	87 - 89
		5.1 (200)	27 - 34	500	8.6 (19.0)	7.6 (16.7)	
	31 (1 ¼)	6.4 (250)	29 - 35	570	10.6 (23.3)	9.4 (20.8)	
		7.6 (300)	31 - 37	630	13.1 (28.8)	11.4 (25.1)	
		8.3 (325)	32 - 38	720	14.3 (31.5)	12.4 (27.2)	

⁽¹⁾ To estimate ESO, subtract 1 1/4 in. (6.0 mm) from CTWD.

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

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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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