



ULTRACORE[®] STAINLESS FCP 308L, 309L, 316L

DOWNHAND AND ALL POSITION STAINLESS FLUX-CORED WIRE

LINCOLN[®]
ELECTRIC



Demanding Applications

Demand Dependable Welds

Corrosive industrial environments present unique demands on welds - causing dull, brittle, or pitted weld deposits. Our UltraCore® Austenitic Stainless FCP wires are up for this challenge.

UltraCore Stainless flux-cored wires deliver the performance needed in such demanding applications. Our design and formulation provide welds to withstand some of the harshest industrial conditions - and maintain their integrity in all positions.

The UltraCore family of stainless flux-cored wires is preferred by welders for effortless slag removal, shiny weld deposits, and trouble-free feeding, while producing high strength weld deposits.

Designed for quality, consistency and performance.



The superior weld performance of UltraCore flux-cored stainless wires appeal to *EVERY* welder.

Welders Choose UltraCore

Welders will enjoy minimal spatter, smooth arc, exceptional puddle wetting and control. In addition, you can expect consistent, trouble-free feeding throughout the weld cycle. The end result is shiny, smooth welds with both CO₂ and mixed shielding gas.

High Performance Welds

Weld with UltraCore flux-cored stainless products, and you will enjoy effortless slag removal, and very little residuals surrounding the weld deposit - minimizing post weld cleanup. There is no undercut with stringer and weave techniques. With its superior arc performance and bead shape, UltraCore stainless products are the choice for demanding applications.

Mechanical Robustness

UltraCore FCP 308/308L, 309/309L and 316/316L are dual-classified products that are low in carbon and high in strength. This dual-classification allows for one product to be used in high and low strength applications. All are Q2 Lot[®]-Certified, ensuring repeatable results. Q2 Lot certificates show actual deposit composition and ferrite number (FN) and are available online.

Welding Positions »

All

Shielding Gas »

100% CO₂
75% Argon / 25% CO₂

Conformances »

[AWS A5.22/A5.22M: 2012](#)
& [ASME SFA-A5.22:](#)

E308LT1-1, E308LT1-4,
E308T1-1, E308T1-4
E309LT1-1, E309LT1-4,
E309T1-1, E309T1-4
E316LT1-1, E316LT1-4,
E316T1-1, E316T1-4

ABS:

E308LT1-1, E308LT1-4,
E308T1-1, E308T1-4
E309LT1-1, E309LT1-4,
E309T1-1, E309T1-4
E316LT1-1, E316LT1-4,
E316T1-1, E316T1-4

CWB/CSA W48-06:

E308LT1-1, E308LT1-4
E309T1-1, E309T1-4
E316LT1-1, E316LT1-4

DIAMETERS / PACKAGING

Diameter in (mm)	ULTRACORE FCP 308L 25 lb (11.3 kg) Plastic Spool (Vacuum Sealed Foil Bag)	ULTRACORE FCP 309L 25 lb (11.3 kg) Plastic Spool (Vacuum Sealed Foil Bag)	ULTRACORE FCP 316L 25 lb (11.3 kg) Plastic Spool (Vacuum Sealed Foil Bag)
0.045 (1.1)	ED027949	ED033010	ED033012
1/16 (1.6)	ED027950	ED033011	ED033013

MECHANICAL PROPERTIES⁽¹⁾ –As Required per AWS A5.22/A5.22M: 2012

		Yield Strength ⁽²⁾ MPa [ksi]	Tensile Strength MPa [ksi]	Elongation %	Ferrite Number
ULTRACORE FCP 308L	Requirements - AWS E308LT1-1, E308LT1-4 AWS E308T1-1, E308T1-4	Not Specified Not Specified	520 (75) min 550 (80) min	35 min	Not Specified Not Specified
	Typical Results ⁽³⁾ - As-Welded with 100% CO ₂ As-Welded with 75% Ar/25% CO ₂	386 (56) 393 (57)	566 (82) 572 (83)	40 39	7-11 8-12
ULTRACORE FCP 309L	Requirements - AWS E309LT1-1, E309LT1-4 AWS E309T1-1, E309T1-4	Not Specified Not Specified	520 (75) min 550 (80) min	30 min	Not Specified Not Specified
	Typical Results ⁽³⁾ - As-Welded with 100% CO ₂ As-Welded with 75% Ar/25% CO ₂	434 (63) 450 (65)	565 (82) 593 (86)	33 33	* 21-30
ULTRACORE FCP 316L	Requirements - AWS E316LT1-1, E316LT1-4 AWS E316T1-1, E316T1-4	Not Specified Not Specified	520 (75) min 550 (80) min	30 min	Not Specified Not Specified
	Typical Results ⁽³⁾ - As-Welded with 100% CO ₂ As-Welded with 75% Ar/25% CO ₂	414 (60) 421 (65)	552 (80) 565 (82)	34 34	6-8 8-11

⁽¹⁾ Typical all weld metal, DC+. ⁽²⁾ Measured with 0.2% offset. ⁽³⁾ See test results disclaimer below. ⁽⁴⁾ A typical certification for UltraCore FCP 309L electrode under 100% CO₂ shielding gas (per E309T1-1 classifications) is available on request. NOTE: Increase voltage by 2V when using 100% CO₂.

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.

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 business of 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.

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