

PRIMACORE™ LW-71H Plus



PRIMACORE™ LW-71H Plus is a basic-rutile, micro-alloyed, CO₂ shielded flux-cored welding wire designed for all-position welding of mild steel in applications requiring consistently high impact toughness values. PRIMACORE™ LW-71H Plus can produce low hydrogen welds and provide excellent bead appearance and operating characteristics.

APPLICATION

PRIMACORE™ LW-71H Plus is designed for use in welding 490N/mm² tensile steels. It is suitable for the following types of applications: tank, offshore, shipbuilding, bridge fabrication, and others.

CONFORMANCE

JIS Z 3313: T494T1-1CA-H5
AWS A5.20 / ASME SFA-5.20: E71T-12C-JH8
(DH ≤5ml/100g)

APPROVALS

ABS: 3SA, 4YSA H5
CCS: 4YSH5
DNV: IV YMS

DIAMETERS / PACKAGING

Diameter (mm)	Spool Weight (kg)	Pallet Weight (kg)	Product No.
1.2	15	1,080	CO71PSHE21
1.4	15	1,080	CO71PSHE41
1.6	15	1,080	CO71PSHE61

WELDING POSITIONS



SHIELDING GAS

100% CO₂ shielding gas.
Flowrate: 40-45 CFH or 20 litres/min

DIFFUSIBLE HYDROGEN

Diffusible hydrogen conforms to relevant agency approval designations, ≤5ml/100g.

ADVANTAGE LINCOLN

- Robust impact values @ -40°C .
- Low hydrogen welds with high crack resistance.
- Consistent properties at a wide range of heat inputs.
- Slag system provides for puddle support, good wetting, and bead shape in all positions.
- Arc action and metal transfer are smooth.
- Slag removal is easily achieved with hand tools.
- Manufactured under a quality system certified to ISO 9001 requirements.

PACKAGING TYPE

- All spools of wire are level layer wound on plastic spools.
- The spools are then vacuum-packed in moisture proof, polyfoil bags.
- The spools of wire are boxed and securely stacked on wooden pallets with plastic shrink-wrap.

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ALL WELD METAL MECHANICAL PROPERTIES -- TYPICAL

	Yield Strength (0.2% Offset) (MPa)	Tensile Strength (MPa)	Elongation (%)	Impact Value (J) @-40°C
AWS Requirements	390 min.	490-620	22 min.	27 min
Typical Values (with 100% CO ₂)	490	560	29	120

WELD DEPOSITE CHEMICAL COMPOSITIONS (Wt-%) -- TYPICAL

	C	Si	Mn	Ni	S	P
AWS Requirements (100%)	0.12	0.90	1.60	0.50	0.03	0.03
Test results* (with 100%CO ₂)	0.04	0.45	1.30	0.41	0.005	0.015

*Test results and product properties listed herein for gas shielded wires have been developed with the shielding gas stated.
A change of shielding gas may cause significant changes in product performance and weld metal properties.
Lincoln Electric does not warrant these products for use with shielding gases other than those listed in the test data.

TYPICAL OPERATING PROCEDURES

Diameter Polarity CTWD mm (inches)	Wire Feed Speed in/min (cm/min)	Voltage (Volts)	Approx. Current (Amps)	Melt-Off Rate Kg/hr (lb/hr)	Deposition Rate Kg/hr (lb/hr)
1.2mm PRIMACORE™ LW-71H Plus DC+ 20(3/4)	175 (445)	21-24	130	1.8	1.5
	225 (572)	23-25	165	2.4	1.9
	275 (699)	25-27	185	2.9	2.4
	325 (826)	26-29	200	3.4	2.9
	375 (953)	27-29	230	4.0	3.3
	425 (1,080)	28-30	250	4.5	3.7
	475 (1,207)	29-31	270	5.0	4.2
	600 (1,524)	31-33	310	6.2	5.3
1.4mm PRIMACORE™ LW-71H Plus DC+ 25(63/64)	150 (381)	23-25	150	2.0	1.7
	200 (508)	24-26	190	2.6	2.2
	250 (635)	25-27	225	3.3	2.8
	300 (762)	26-28	240	4.0	3.6
	350 (889)	27-29	275	4.6	3.7
	400 (1,016)	28-30	300	5.3	4.5
	450 (1,143)	29-31	325	6.0	5.1
1.6mm PRIMACORE™ LW-71H Plus DC+ 25(63/64)	130 (330)	22-25	180	2.6	2.2
	150 (381)	23-26	210	3.0	2.5
	200 (508)	24-27	265	3.9	3.2
	250 (635)	26-29	305	4.9	4.1
	300 (762)	28-31	345	5.8	4.9

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 advice or information about their use of our products. We respond to our customers based on the best information in our possession at that time. Lincoln Electric is not in a position to warrant or guarantee such advice, and assumes no liability, with respect to such information or advice. We expressly disclaim any warranty of any kind, including any warranty of fitness for any customers particular purpose, with respect to such information or advice. As a matter of practical consideration, we also cannot assume any responsibility for updating or correcting any such information or advice once it has not been given, nor does the provision of information or advice create, expand or alter any warranty with respect to the sale of our products.

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.cn for any updated information.

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