

PRIMACORE™ LW-71 is a gas shielded, basic-rutile, general purpose, micro alloyed, flux-cored welding wire designed for all position welding of mild steel in applications requiring moderate levels of strength and very good notch toughness. PRIMACORE™ LW-71 should be used with CO<sub>2</sub> only.

**CONFORMANCE**

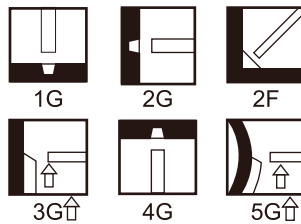
JIS Z 3313: YFL-C503R  
AWS A5.20 / ASME SFA-5.20:  
E71T-1C/9C

**APPROVALS**

ABS: 3SA, 3YA (H10)  
LR: 3S, 3YSH15  
NK: KSW53G (C) H10  
CCS: 3YSH10  
DNV: IIYMS (H10)  
BV: SA3MHH, SA3YMHH  
GL: 3YH10S  
RS: 3YMSH10  
KR: 3SGH10, 3YSGH10, 3MGH10, 3YMGH10  
CWB

**SHIELDING GAS**

100% CO<sub>2</sub> shielding gas.  
Flowrate: 40-45 CFH or 20 litres/min

**WELDING POSITIONS****ADVANTAGE LINCOLN**

- Excellent mechanical properties.
- 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.
- One sided welding is possible with ceramic backing and will produce excellent results.
- Applications include those in general fabrication, ship or barge construction, building or bridge erection, and off-shore industries.
- Manufactured under a quality system certified to ISO 9001 requirements.
- The manufacture and quality conforms to Japanese Industrial Standard (JIS).
- Drum packaging is available.

**DIFFUSIBLE HYDROGEN**

Diffusible hydrogen conforms to relevant approval agency designations.

**PACKING**

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

**DIAMETERS/PACKAGING**

Diameter (mm)	Spool/Drum Weight (kg)	Pallet Weight (kg)	Product No.
1.2	15	1,080	COPLW71E21
1.4	15	1,080	COPLW71E41
1.6	15	1,080	COPLW71E61
1.2	4.5	1,080	COPLW71E29
1.4	4.5	1,080	COPLW71E49
1.6	4.5	1,080	COPLW71E69
1.2	225	900	COPLW71X28
1.4	200	800	COPLW71X48
1.6	200	800	COPLW71X68

Cone + Conduit Adapter  
Part No.: QTM-0001

**DEPOSIT COMPOSITION --- ALL WELD METAL**

Requirements:	%C	%Mn	%P	%S	%Si
AWS E71T-1C/E71T-9C per A5.20	0.12 max.	1.75 max.	0.03 max.	0.03 max.	0.90 max.
Test results* (with 100%CO <sub>2</sub> )	0.06	1.33	0.02	0.01	0.39

**MECHANICAL PROPERTIES --- ALL WELD METAL**

	Yield Strength Mpa	Tensile Strength Mpa	Elongation (%)	Charpy V-Notch Joules	
				@-20°C	@-30°C
<b>Requirements</b> AWS E71T-1C AWS E71T-9C	390	490-670	22min.	27 min. <sup>(1)</sup>	27 min. <sup>(2)</sup>
<b>Test Results*</b> <b>As Welded</b> (with 100% CO <sub>2</sub> )	559	610	26	117	113
<b>Test Results<sup>(3)</sup></b> <b>Stress Relieved</b> (with 100% CO <sub>2</sub> )	450	550	32	108	--

\*1.6mm diameter wire, DC+. Typical all weld metal in the as welded condition.

<sup>(1)</sup> For E71T-1 only. <sup>(2)</sup> For E71T-9 only. <sup>(3)</sup> Stress relieved for 1 hour at 620°C.

\*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**

Wire Polarity CTWD mm (inches)	Wire Feed Speed in/min (cm/min)	Arc Voltage (volts)	Approx. Current (amps)	Melt-Off Rate (kg/hr)	Deposition Rate (kg/hr)
1.2mm PRIMACORE™ LW-71 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-71 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-71 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



Vacuum foil-poly packaging with silica gel will significantly increase storage life if stored correctly. Steel wire will rust if not kept dry. Store in clean, dry storage space. Be sure wire is dry when received. The Lincoln Electric Company can take no responsibility for wire that rusts from getting wet after it leaves our plant.

**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](http://www.lincolnelectric.com.cn) for any updated information.

**LINCOLN®  
ELECTRIC**

**THE SHANGHAI  
LINCOLN ELECTRIC  
CO.,LTD**

No.195,Lane 5008,Hu Tai Rd,  
Shanghai China 201907  
(Gao Jing Industry Park)  
TEL:86-21-6673 4530  
FAX:86-21-6602 6621  
[www.lincolnelectric.com.cn](http://www.lincolnelectric.com.cn)

***Distributed By:***