

# PRIMACORE™ P-71X



PRIMACORE™ P-71X is a new type, rutile base, 100% CO<sub>2</sub> gas shielded flux-cored welding wire that is specifically formulated for all-position welding of mild steel in applications requiring excellent operational characteristic.

PRIMACORE™ P-71X provides:

- Excellent bead appearance
- Low level spatter and smoke
- Consistent feedability
- Smooth and stable arc
- Easy slag removal

## APPLICATION

PRIMACORE™ P-71X is designed for use in welding 490N/mm<sup>2</sup> tensile steels. It is suitable for the following applications: shipbuilding, bridges, building construction, heavy machinery & equipment, petrochemical, pressure vessels, steel structures, etc.

## CONFORMANCE

AWS A5.20/ ASME SFA-5.20: E71T-1C  
(with 100% CO<sub>2</sub> shielding gas only)

## APPROVALS (PENDING)

ABS: 3SA (H10) & 3YSA (H10)  
CCS: 3YSH10  
DNV: III YMS (H10)  
LR: 3S, 3YS, 3M, 3YM, H15

## WELDING POSITIONS



## LINCOLN ADVANTAGE

- Slag system provides for puddle support, good wetting and bead shape in all position
- Arc action and metal transfer are smooth
- Slag removal is easily achieved manually.
- Excellent results for one sided welding are possible with ceramic backing.
- Manufactured under a quality system certified to ISO 9001 and JIS requirements.

## 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 packed and vacuumed in a moisture proof, metal foil bag.
- The spools of wire are boxed and securely stacked on wooden pallets with shrink-wrap plastic.

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## PACKAGING, SHIELDING GAS AND AVAILABLE DIAMETERS

Diameter (mm)	Plastic Spools (kg)	Shielding Gas	Pallet Weight (kg)	Product No.
1.2	15kg plastic spool	CO <sub>2</sub> , 20L/min or 40-45 CFH	1080kg	COPP71XE21
1.4	15kg plastic spool	CO <sub>2</sub> , 20L/min or 40-45 CFH	1080kg	COPP71XE41
1.6	15kg plastic spool	CO <sub>2</sub> , 20L/min or 40-45 CFH	1080kg	COPP71XE61
1.2	225kg drum	CO <sub>2</sub> , 20L/min or 40-45 CFH	900kg	COPP71XX27
1.4	200kg drum	CO <sub>2</sub> , 20L/min or 40-45 CFH	800kg	COPP71XX46
1.6	200kg drum	CO <sub>2</sub> , 20L/min or 40-45 CFH	800kg	COPP71XX66

## MECHANICAL PROPERTIES, ALL WELD METAL

	Yield Strength Mpa	Tensile Strength Mpa	Elongation (%)	Impact Value@-20°C (J)
<b>Requirements</b> AWS E71T-1C per AWSA5.20	390	490-670	Min.22	Min.27
<b>Typical Values (*with100%CO<sub>2</sub>)</b>	440-540	530-620	25	120

\* 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 cover these products under warranty for use with shielding gases other than those listed in the test data.

## CHEMICAL COMPOSITION, ALL WELD METAL

	C	Si	Mn	S	P
<b>Requirements</b> AWS E71T-1C Per A5.20 (%) Max.	0.12	0.90	1.75	0.03	0.03
<b>Typical Values (%) (*with100%CO<sub>2</sub>)</b>	0.05	0.60	1.50	0.010	0.013

## 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)
<b>1.2mm</b> <b>PRIMACORE™ P-71X</b> <b>DC+</b> <b>20(3/4)</b>	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
<b>1.4mm</b> <b>PRIMACORE™ P-71X</b> <b>DC+</b> <b>25(63/64)</b>	600 (1,524)	31-33	310	6.2	5.3
	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
<b>1.6mm</b> <b>PRIMACORE™ P-71X</b> <b>DC+</b> <b>25(63/64)</b>	450 (1,143)	29-31	325	6.0	5.1
	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.

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