Merit™ LMC6

AWS A5.18 ER70S-6

Merit™ LMC6 is a copper coated MIG wire that is an excellent choice for welding on metals with a medium to high presence of mill scale. With its high silicon and manganese deoxidizer levels, superior feedability, excellent arc characteristics, excellent weld appearance and toe wetting, Merit™ LMC6 is the industry's premium brand of MIG wires. Shielding gases include argon/carbon dioxide blends and straight carbon dioxide. For best performance use on clean, oil-free base material.

KEY FEATURES

- Excellent drawing and copper coating techniques ensure superior feedability and excellent arc stability.
- Copper coating provides superior arc-starting characteristics, for long contact tip life and is manufactured not to flake, which can clog liners and contact tips.
- Will support all the traditional modes of GMAW metal transfer: short-circuiting, globular, axial spray, and pulsed spray.
- Precision layer wound spools are well suited for applications where accurate and consistent wire feeding is necessary.
- Excellent spatter control and bead profile.

APPLICATIONS

- Construction Equipment
- Agricultural equipment
- Automotive
- Ductwork
- Shipping Containers
- Ornamental Iron
- Tubular Framework
- Light to heavy structural steel fabrication
- Any application where a finished' weld is desirable

CONFORMANCE

AWS SFA 5.18, ASME Section-II Part-C SFA 5.18

DIAMETERS / PACKAGING

Diameter (mm)	Spools (Kg)	Drums (Kg)	Product No.
0.8	15		ICM06080
1.2	15		ICM06120
1.6	15		ICM06120
0.8		250	ICM06082
1.2		250	ICM06122
1.6		250	ICM06162

WELDING POSITIONS

LINCOLN ELECTRIC
THE WELDING EXPERTS

WIRE COMPOSITION [1] – As required per AWS SFA 5.18, ASME Section-II Part-C SFA 5.18

CHEMICAL COMPOSITION, ELECTRODE						
	% C	% Mn	% Si	% S	% P	% Cu (Total)
Requirements - AWS ER70S-6	0.06-0.15	1.40-1.85	0.80-1.15	0.035 max	0.025 max	0.50 max
[2] Typical results	0.06-0.08	1.40-1.50	0.80-0.90	0.025 max	0.025 max	0.10 max

	% Cr	% Ni	% Mo	% V
Requirements - AWS ER70S-6	0.15 max	0.15 max	0.15 max	0.03 max
[2] Typical results	0.06 max	0.15 max	0.15 max	0.03 max

MECHANICAL PROPERTIES OF ALL WELD METAL				
	Tensile strength MPa (Ksi)	Yield Strength MPa (Ksi)	Elongation (%)	Charpy V-Notch,J (ft.lbf) @-29°C (-20°F)
Requirements - AWS ER70S-6	485 (70) min	400 (58) min	22 min	27 (20) min
[2] Typical results- As welded 100 % CO_2	568 (81)	461 (66)	26	63 (46)
[2] Typical results- As welded 80:20 % Ar:CO_2	583 (83)	488 (70)	28	78 (56)
[2] Typical results- As welded 90:10 % Ar:CO_2	611 (87)	517 (73)	27	94 (68)

(1) Single values are maximums.

[2] 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.

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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