

LC-618M

For welding of 60kgf/mm² class high tensile strength steel

AWS A5.5 E9018-M
KS D7006 E5816
JIS Z3211 E6218-N3M1

Applications

Welding of 60kgf/mm² class high tensile strength steel for pressure vessels, bridges, penstocks, vehicles, offshore constructions and machinery. Fillet tack welding of T1, HY80, HY90, steels.

Characteristics

LC-618M is an iron powder low hydrogen type electrode which provides good usability in all-positions and good notch toughness at low temperature.

The weld metal has good crack resistibility because of less hydrogen content.

Therefore, it is also applicable for welding heavy plates.

Furthermore, its X-ray performance is very good.

Notes on usage

- (1) Dry the electrodes at 350~400°C for about one hour before use.
- (2) Adopt back step method or strike the arc on a small steel plate prepared for this particular purpose, because arc striking on base metal is in danger of initiating cracking.
- (3) Keep the arc as short as possible.
- (4) Preheat at 80~100°C before use. The temperature to be applied varies in accordance with plate thickness and steel kind.
- (5) Pay attention not to exceed proper heat-input because excessive heat-input causes deterioration of impact values and yield strength of weld metal.

Typical chemical composition of weld metal (%)

C	Mn	Si	P	S	Ni	Mo
0.06	1.15	0.48	0.015	0.008	1.61	0.16

Typical mechanical properties of weld metal

YP N/mm ² (kgf/mm ²)	TS N/mm ² (kgf/mm ²)	EL %	IV J (kgf-m)-51°C
600(61)	680(69)	28	80(8)

Size & recommended current range (AC or DC +)

Dia. (mm)	3.2	4.0	5.0	6.0	
	L (mm)	350	400	400	450
Amp.	F	90-140	140-180	180-240	230-300
	V&OH	70-120	120-160	150-200	-

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