

## Applications

All position welding of offshore, shipbuilding, bridge construction machinery, and vehicles.

## Characteristics on Usage

- ① SL-81Ni2M is a titania type Seamless flux cored wire for all position welding.
- ② It provides excellent notch toughness at low temperature.
- ③ It provides an exceptionally smooth and stable arc with a fast freezing slag system.

## Notes on Usage

- ① Proper Preheating(50~150°C)(122~302°F) and interpass temperature must be used in order to release hydrogen which may cause cracking in weld metal when electrodes are used for medium and heavy plates.
- ② One-side welding defects such as hot cracking may occur with wrong welding parameter such as high welding speed.
- ③ Use Ar+20~25%CO<sub>2</sub> gas.

## Welding Position(All-Position)

## Current

## Shielding Gas



1G 2F 3G 4G

## Typical Chemical Composition of All-Weld Metal (%)

C	Si	Mn	P	S	Ni
0.04	0.25	1.18	0.009	0.009	2.25

## Typical Mechanical Properties of All-Weld Metal

YS MPa(lbs/in <sup>2</sup> )	TS MPa(lbs/in <sup>2</sup> )	EL (%)	Temp. °C (°F)	CVN-Impact Value J (ft · lbs)
560 (81,300)	615 (89,200)	22	-40 (-40)	100 (74)
			-60 (-76)	60 (44)

## Approval

## I Packing(Including Ball Pac)

Dia. (mm) 1.2 1.4  
(in)

Spool(kg) 12.5  
(lbs)

## Sizes Available and Recommended Currents (Amp.)

Size mm (in)	1.2	1.4
F	130~300	160~330
V-up,OH	170~230	190~250
V-down	150~300	170~330