LC-318N

For welding of aluminum-killed steel for low-temperature service

AWS A5.1 E7018-1
KS D 7006 D5016
JIS Z3211 E4918-1

Applications

Welding of LPG tankers, LPG storage tanks equipment for low-temperature service, and offshore structures to be used at low-temperature districts.

Characteristics

LC-318N is an iron powder-low hydrogen type covered electrode to be used in all-position welding of aluminum-killed steel for low-temperature service.
It provides excellent notch toughness at -45℃ and good usability in direct current welding.

Notes on usage

(1) Welding heat input must be controlled in order to get required impact value, since notch toughness tends to be decreased by excessive heat input.
(2) Preheating at 50~100℃ is needed depending upon the kind of steel and its thickness.
(3) Dry the electrodes at 350~400℃ for about one hour before use.
(4) Adopt the backstep method or strike the arc previously on a small steel piece to prevent blowholes at the arc striking in a groove.

Typical chemical composition of weld metal (%)

C	Mn	Si	P	S	Ni
0.07	1.21	0.49	0.013	0.007	0.25

Typical mechanical properties of weld metal

YP N/mm²(kgf/mm²)	TS N/mm²(kgf/mm²)	EL %	IV J (kgf-m)		PWHT
			-30℃	-45℃	
450(46)	530(54)	33	204(20.9)	97(9.9)	-
420(43)	500(51)	34	216(22.1)	106(10.9)	620℃×1hr SR

Size & recommended current range (AC or DC +)

Dia. (mm)		2.6	3.2	4.0	5.0	5.5
L (mm)		350	350	400, 450	400, 450	450
Amp.	F	60-100	30-130	130-190	200-240	230-270
	V&OH	50-80	70-130	100-170	160-210	-

• Approval : ABS
• Tip Color : White