

CA-652 X UC-12K(UC-A2)

For single and Multi-layer welding of high tensile Strength steel

AWS A5.17 F7A4-EM12K
AWS A5.23 F9A2-EA2-G

Applications

Filler and butt welding of buildings, bridges and API line-pipe.

Characteristics

- (1) It provides good bead appearance, better slag removal.
- (2) It provides good notch toughness of the weld metal.
- (3) Applicable to AC, DC(+) and two-run technique.

Notes on usage

- (1) Store the flux at the place of moisture free and dry the flux at 300~350°C for 60 minutes before use.
- (2) Remove rust, scales, oil, paint, water, dirt and slag of tack welds from the groove in order to get sound welds.
- (3) When the flux height is excessive, poor bead appearance may occur.
- (4) The use of the flux which has been re-used for welding in many times may cause deterioration of its usability. Therefore, unused flux should be mixed properly with such used flux.

Typical chemical composition of weld metal (%)

Wire	C	Mn	Si	P	S	Mo	Remarks	
							Base Metal	PT(mm)
UC-12K	0.05	1.45	0.31	0.021	0.007	-	SM490	25
UC-A2	0.07	1.50	0.23	0.020	0.007	0.40	SM570	25
UC-A2	0.06	1.52	0.20	0.016	0.006	0.18	API 5L X70	19

Typical mechanical properties of weld metal

WIRE	YP N/mm ² (MPa)	TS N/mm ² (MPa)	EL %	IV (J)			Remarks		
				-20°C	-30°C	-46°C	Base Metal	PT (mm)	PWHT
UC-12K	493	568	28.6	-	-	71	SM490	25	AW
UC-A2	611	676	25.5	96	84	-	SM570	25	AW
UC-A2	523	621*	35.8	124	74	54	API 5L X70	16	AW

* Fracture at the base metal