

# CA-514 × UC-43

For single and multi-layer welding of mild and 490N/mm<sup>2</sup> class high tensile strength steel, For one-side welding

AWS F7A4-EL8  
F7P4-EL8

## Applications

CA-514×UC-43 are well suited for fillet and butt welding of ships, structural steel, and heavy duty structures.

## Characteristics

- (1) Impact properties of weld metal and crack resistibility are excellent.
- (2) Particularly well suited for both side single layer welding in plates thicker than 15mm with single or multi-wire systems within the ship building industry.
- (3) Slag detachability and bead appearance are very good.
- (4) As the consumption of flux is small, it is very economical.
- (5) Applicable to tandem and one-side welding.
- (6) Applicable to both AC and DC(+).

## Notes on usage

- (1) Store the flux at the place of moisture free and dry the flux at 250~350°C for about one hour before use.
- (2) The use of the flux which has been re-used for welding in many times may cause deterioration of its usability. Therefore, the unused flux should be mixed properly with such used flux.
- (3) Pay attention to welding voltage. Excessive welding voltage caused deterioration of joint properties.

## Typical chemical composition of weld metal (%)

C	Mn	Si	P	S	Remarks	
					Base metal	PT(mm)
0.08	1.55	0.38	0.021	0.015	SM490A	25
0.07	1.35	0.42	0.016	0.010	DH36	25

## Typical mechanical properties of weld metal

YP N/mm <sup>2</sup> (MPa)	TS N/mm <sup>2</sup> (MPa)	EL (%)	IV (J)		Remarks		
			0°C	-40°C	Base metal	PT (mm)	PWHT
462	546	31	70	52	SM490A	25	As weld
-	586	-	65	-	DH36	25	As weld

• Approval : ABS, BV, DNV, GL, KR, LR, NK