

# S-787TB × H-14

TYPE : Neutral

AWS A5.17 / ASME SFA5.17 F7A(P)8-EH14  
JIS Z3352 S A FB 1  
EN ISO 14174 S A FB 1 / EN ISO 14171 S4

## Applications

Single and multi-layer welding of aluminum-killed steel for low temperature service used in offshore structures, chemical vessels, steel pipes, low temperature service equipments and other structures in cold regions.

## Characteristics on Usage

Excellent notch toughness at low temperature down to  $-60^{\circ}\text{C}$  ( $-76^{\circ}\text{F}$ ). Suitable for single and multi-layer welding of TMCP steel. Resistance to pockmark and porosity is excellent. Slag detachability in the groove is good.

## Notes on Usage

- ① Dry the flux at  $300\sim 350^{\circ}\text{C}$  ( $572\sim 662^{\circ}\text{F}$ ) for 60 minutes before use.
- ② In case of multi-layer welding, use welding current and speed as low as possible at the first layer of groove to avoid cracking.
- ③ Add new flux periodically to prevent the weld defects and bad bead appearance which occurs when continuously reusing the flux.

Approval	I Current	I Basicity Index
KR, ABS, LR, BV, DNV, GL, NK	AC, DC +	2.4

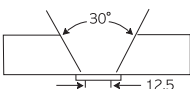
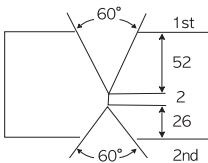
## Typical Chemical Composition of All-Weld Metal (%)

Wire	C	Si	Mn	P	S	Ti	B	BM	Th.(mm)
H-14	0.09	0.25	1.53	0.020	0.015	0.020	0.0020	SS400	25
	0.06	0.12	1.12	0.012	0.005	0.021	0.0024	API-2HGr.50	80

## Typical Mechanical Properties of All-Weld Metal

Wire	YS MPa(lbs/in <sup>2</sup> )	TS MPa(lbs/in <sup>2</sup> )	EL (%)	Temp. °C (°F)	CVN-Impact Value J (ft · lbs)	BM	Th.(mm)
H-14	580 (84,200)	620 (90,000)	31	-62 (-80)	90 (66)	SS400	25
	470 (68,200)	550 (76,800)	34	-40 (-40)	90 (66)	API-2H Gr.50	80
				-62 (-80)	70 (52)		

## Typical Welding Conditions

Wire	Dia. (mm)	Th. (mm)	Groove Design (mm)	Pass	Amp. (A)	Volt. (V)	Speed (cm/min)	Remarks	
H-14	4.0	25		1~13	570	30	40	AWS A5.17	
				1	220	26	55	(FCAW)	
H-14	4.0	80		2	450	28	30		1st
				3~25	600	34	30		
				26	450	28	30	2nd	
				27~36	600	34	30		