

# S-717 × M-12K

TYPE : Neutral

AWS A5.17 / ASME SFA5.17 F7A(P)6-EM12K  
JIS Z3183 S502-H  
EN ISO 14174 S A AB 1 / EN ISO 14171 S2Si

SAW

## Applications

Multi-layer welding of structural steels, offshore structures and thick, windmill, pressure vessels.

## Characteristics on Usage

Good weldability for all range of thickness of plate. Excellent impact value and crack-resistibility of welded metal. Inactive type flux is not affected by welding parameter, especially suitable for multi-layer welding of thick plate.

## Notes on Usage

- ① Dry the flux at 300~350° c (572~662° F) for 60 minutes before use.
- ② For the first layer in groove, keep the current and speed low in the case of multi-layer welding.

Approval	I Current	I Basicity Index
KR, ABS, LR, BV, DNV, GL, NK, MRS CWB, TÜV, CE-Mark, DB	AC, DC +	1.9

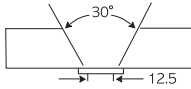
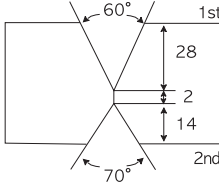
## Typical Chemical Composition of All-Weld Metal (%)

Wire	C	Si	Mn	P	S	BM	Th.(mm)
M-12K	0.09	0.26	1.40	0.023	0.004	SS400	25
M-12K	0.08	0.54	1.47	0.025	0.018	BS4360-Gr,50D	44

## 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)
M-12K	555 (80,500)	614 (89,100)	29	-51 (-60)	60 (44)	SS400	25
M-12K	510 (74,000)	580 (84,200)	28	-20 (-4)	70 (52)	BS4360-Gr,50D	44

## Typical Welding Conditions

Wire	Dia. (mm)	Th. (mm)	Groove Design (mm)	Pass	Amp. (A)	Volt. (V)	Speed (cm/min)	Remarks
M-12K	4.0	25		1~13	570	30	40	AWS A5.17
M-12K	4.0	44		1	500	32	40	} 1st
				2~14	600	36	50	
				15	500	32	40	} 2nd
16~23	600	36	50					