Superflux800T × M-12K[A-2]

TYPE : Neutral

AWS A5.17/ASME SFA5.17 F7A8-EM12K
AWS A5.23/ASME SFA5.23 F8A4-EA2-A3
EN ISO 14174 S A AB 1 / EN ISO 14171 S2Si[S2Mo]

Applications

Butt and flat welding of windmill tower, hydro plant penstocks and pressure vessels.

Characteristics on Usage

It provides good bead appearance, better slag removal and together high impact value of the weld metal. It is relatively insenitive to rust and dirt on a base metal, and makes better resistance to pockmarks and pits. High impact values in both multi-run and two-run technique.
As the consumption of flux is low, it is very economical.

Notes on Usage

① Dry the flux at 300~350℃ (572~662˚F) for 60 minutes before use.
② When the flux height is excessive, poor bead appearance may occur.
③ Use welding current and speed as low as possible at the first layer of groove to avoid cracking.

Approval	I Current	I Basicity Index
TÜV, CE-Mark, DB(M-12K)	AC, DC +	2.4

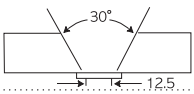
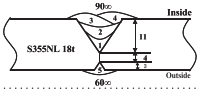
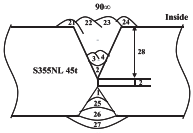
Typical Chemical Composition of All-Weld Metal (%)

Wire	C	Si	Mn	P	S	Mo	BM	Th.(mm)
M-12K	0.09	0.35	1.40	0.023	0.006	-	SM490	25
A-2	0.09	0.24	1.48	0.020	0.006	0.43	SM570	25
M-12K	0.10	0.35	1.40	0.020	0.007	-	S355NL	45

Typical Mechanical Properties of All-Weld Metal

Wire	YS MPa(lbs/in²)	TS MPa(lbs/in²)	EL (%)	Position of fracture	CVN-Impact Value J (ft · lbs) -40℃(-40˚F)	-50℃(-58˚F)	-60℃(-76˚F)	BM	Th. (mm)
M-12K	530 (76,700)	570 (82,700)	29	-	-	-	100 (74)	SM490	25
A-2	630 (91,400)	660 (95,700)	24	-	70 (52)	-	-	SM570	25
M-12K	-	550 (79,800)	-	BM	-	60 (44)	-	S355NL	45

Typical Welding Conditions

Wire	Dia. (mm)	Th. (mm)	Groove Design (mm)		Pass	Amp. (A)	Volt. (V)	Speed (cm/min)	Remarks
M-12K (A-2)	4.0	25			1~13	570	30	40	AWS A5.17/ A5.23
M-12K	40	18		In Out	1 2~4 5	550 600 650	28 32 34	40 40 40	Both Side Multi-pass
M-12K	4.0	45		In Out	1 2~24 Sealing : SM-70(1.2mm) 25 26~27	600 600~650 650 650	30 30~32 30 32	40 40~45 40 35	Both Side Multi-pass