

S-800SP X M-12K [A-2]

Type : Neutral

Conformances

AWS A5.17/ ASME SFA5.17 F7A4-EM12K
JIS Z3183 S502-H
AWS A5.23/ ASME SFA5.23 F9TA4G-A2 / F8A2-EA2-G
JIS Z3352 SA AB1
EN ISO 14174-S A AB 1 / EN ISO 14171-A-S2Si [S2Mo]

Applications

- Pipe line

Features

- Good resistance to porosity on rust, scales and primers
- High speed welding (Spiral pipes)
- Density : 1.2g/cm³

Current

AC, DC +

Basicity Index

1.2

Packages (Flux)

Tin Can 20kg(44lbs)
PE Bag 20kg(44lbs)

Flux Composition

Consumable	Chemical Composition, wt%			
	SiO ₂ + TiO ₂	CaO + MgO	Al ₂ O ₃ + MnO	CaF ₂
S-800SP	20	25	30	20

Diameter / Packaging

- M-12K : √
- A-2 : ○

Diameter mm (in)	Spool	Basket			Coil					Pac				
	20kg (44lbs)	25kg (55lbs)	100kg (220lbs)	25kg (55lbs)	100kg (220lbs)	200kg (440lbs)	250kg (551lbs)	300kg (661lbs)	500kg (1102lbs)	200kg (440lbs)	250kg (551lbs)	300kg (661lbs)	350kg (771lbs)	400kg (881lbs)
1.6 (1/16)	√○			√									√	
2.0 (5/64)	√	○		√○							√	○	√	√
2.4 (3/32)		√○	√	√○	√									√
3.2 (1/8)		√○	√	√○	√			○		√				√
4.0 (5/32)		√○	√	√○	√○	√○	○		√○	√	√○	√○	○	√○
4.8 (3/16)				√	√			√	√	√				

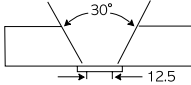
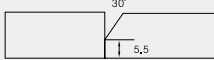
Typical Chemical Composition of All-Weld Metal(%)

Wire	C	Si	Mn	P	S	Mo	BM	Th.(mm)
M-12K	0.07	0.35	1.30	0.020	0.006	-	SS400	25
A-2	0.09	0.27	1.20	0.018	0.007	0.39	SM570	25
A-2	0.08	0.23	1.40	0.013	0.004	0.14	API 5L X65	11.1

Typical Mechanical Properties of All-Weld Metal

Wire	YS MPa(lbs/in ²)	TS MPa(lbs/in ²)	EL (%)	Position of fracture	CVN-Impact Value J (ft.lbs)			BM	Th. (mm)
					-20°C (-4°F)	-30°C (-22°F)	-40°C (-40°F)		
M-12K	505 (73,200)	587 (85,100)	28	-	-	-	70 (52)	SS400	25
A-2	580 (84,200)	654 (94,900)	26	-	-	80 (59)	-	SM570	25
A-2	-	590 (85,600)	-	BM	80 (59)	70 (52)	-	API 5L X65	11.1

Typical Welding Parameters

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
A-2	L(DC+):4.0 T(AC):4.0	11.1		In side 1st Out side 2nd	(L)1050 (T)620 (L)1000 (T)660	34 40 34 40	200 200	Both Side Single- pass (tandem)