

S-950S X M-12K [A-2, A-2TiB]

Type : Neutral

Conformances

AWS A5.17/ ASME SFA5.17 F7A4(P8)-EM12K
 AWS A5.23/ ASME SFA5.23 F8A(P)5-EA2-EA3
 AWS A5.23/ ASME SFA5.23 F8TA(P)8-EA2
 AWS A5.23/ ASME SFA5.23 F8TA(P)8-EA2TiB

Applications

- Pipe line

Features

- Good resistance to porosity on rust, scales and primers
- High speed welding (Longitudinal pipes)
- Good impact value at low temperature
- Density : 1.2g/cm³

Current

AC, DC +

Basicity Index

2.2

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-950S	15	35	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)				✓	✓			✓	✓	✓				

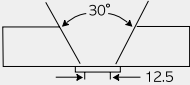
Typical Chemical Composition of All-Weld Metal(%)

Wire	C	Si	Mn	P	S	Mo	BM	Th.(mm)
M-12K	0.06	0.20	1.50	0.016	0.003	-	SS400	25
A-2	0.06	0.20	1.51	0.016	0.003	0.43	SM570	25

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)
					40°C (-40°F)	46°C (-50°F)	-60°C (-76°F)		
M-12K	470 (68,200)	540 (78,400)	30	-	-	-	150 (110)	SS400	25
A-2	570 (82,700)	640 (92,800)	28	-	-	70 (52)	-	SM570	25

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

SMW

SAW

GMW

GTAW

FCAW

Non-FERROUS

APPENDIX