SAW Fluxes

AUTOMELT B43

GENERAL DESCRIPTION:

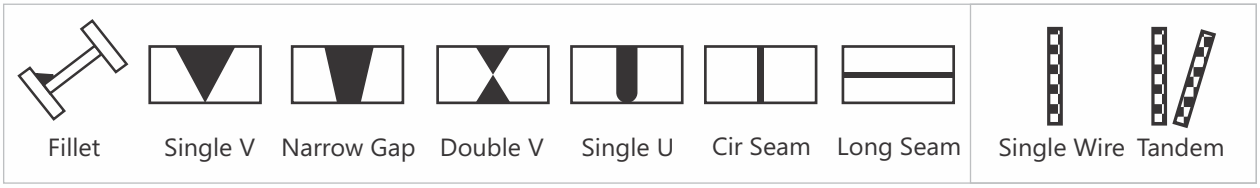
- Agglomerated Flux
- Fluoride-Basic Type Flux
- High Basic Flux having Basicity index of 3.1
- Neutral behaviour to activity
- Multi-pass Butt and Fillet Welding
- For Low Alloy Steels
- Suitable for Narrow Gap Welding
- Suitable for Single & Multi Wire Tandem System
- Suitable for Welding Speeds of 0.40 – 0.60 m/min
- Grain Size – 0.25-1.60 mm
- Type of Current – DCEP / AC
- Produces weld metal with low P

CLASSIFICATION :

With Wire	AWS 5.17/5.23	Single/Multi-pass
AUTOMELT ENi1	F7A6-ENi1-Ni1	Multi-pass
AUTOMELT ENi2	F7A8-ENi2-Ni2	Multi-pass
AUTOMELT ENi3	F7A10/P10-ENi3-Ni3	Multi-pass
AUTOMELT ENi5	F9A4-ENi5-Ni5	Multi-pass

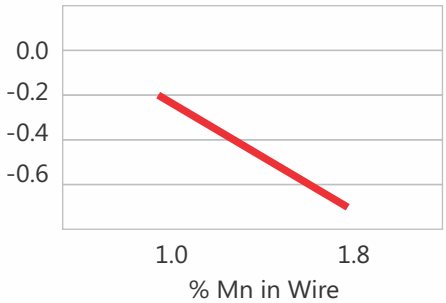
TYPICAL APPLICATIONS :

- Fabrication of Reactors, steam generators
- Long Seam and Cir Seam Welding of Pipes
- Fabrication of Pressure Vessel and Boiler
- Heavy Equipment Fabrication

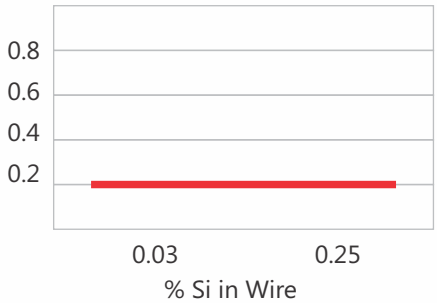


ACTIVITY OF THE FLUX:

% Mn Pick-up from the flux



% Si Pick-up from the flux



CHEMICAL COMPOSITION OF FLUX:

SiO_2 + TiO_2	Al_2O_3 + MnO	CaF_2
10	35	50

(continue...)

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CHEMICAL COMPOSITION OF UNDILUTED WELD METAL (Wt%), TYPICAL:

With wire	C	Mn	Si	Ni	Mo
AUTOMELT ENi1	0.05	0.80	0.30	0.90	
AUTOMELT ENi2	0.05	0.80	0.30	2.20	
AUTOMELT ENi3	0.05	0.80	0.30	3.20	
AUTOMELT ENi5	0.05	1.10	0.30	1.00	0.20

MECHANICAL PROPERTIES OF ALL WELD METAL, TYPICAL:

With wire	Condition	UTS, MPa	YS, MPa	% E	CVN Impact (J)		
					-50°C	-60°C	-70°C
Automelt ENi1	AW	520	430	29	50		
Automelt ENi2	AW	530	430	28	70	40	
Automelt ENi3	AW	590	500	28	90	60	30
Automelt ENi3	PW	560	480	30	100	70	40
Automelt ENi5	AW	650	570	20	40 (at -40°C)		

AW – As Welded; PW – After Post weld heat treatment of 620°C for 1 hour

The chemistry and mechanical properties will depend on actual wire chemistry and arc voltage