



# AUTOMELT B20 PLUS

SAW Flux

## GENERAL DESCRIPTION:

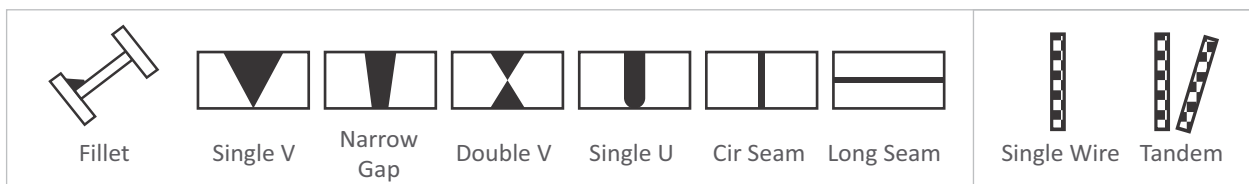
- Agglomerated Flux
- Fluoride-Basic Type Flux
- High Basic Flux having Basicity Index of 3.1
- Neutral behaviour to activity
- Multi-pass Butt and Fillet Welding
- For Carbon & Low Alloy Steels
- Suitable for Narrow Gap Welding
- Suitable for Single & Multi Wire Tandem System
- Suitable for Welding Speeds of 0.40 – 0.60 m/min
- Grain Size – 0.25-1.60 mm
- Type of Current – DCEP / AC
- Wall Neutrality Number with EM12K is 23

## CLASSIFICATION :

With Wire	AWS 5.17/5.23	Single / Multi-pass
AUTOMELT EM12K	F7A8/F6P8-EM12K	Multi-pass
AUTOMELT EH10K	F7A8/P8-EH10K	Multi-pass
AUTOMELT EH12K	F7A8/P10-EH12K	Multi-pass
AUTOMELT EH14	F7A6/P6-EH14	Multi-pass
AUTOMELT EB2R	F8P2-EB2R-B2R	Multi-pass
AUTOMELT EB3R	F8P0-EB3R-B3R	Multi-pass
AUTOMELT EB91	F9PZ-EB91-B91	Multi-pass
AUTOMELT ENi1	F7A6-ENi1-Ni1	Multi-pass
AUTOMELT ENi2	F7A8-ENi2-Ni2	Multi-pass
AUTOMELT ENi3	F7A10-ENi3-Ni3	Multi-pass
AUTOMELT EF2	F8A6-EF2-F2	Multi-pass
AUTOMELT EF3	F9A8-EF3-F3	Multi-pass
AUTOMELT S3NiCrMo2.5	F11A8-EG-G	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



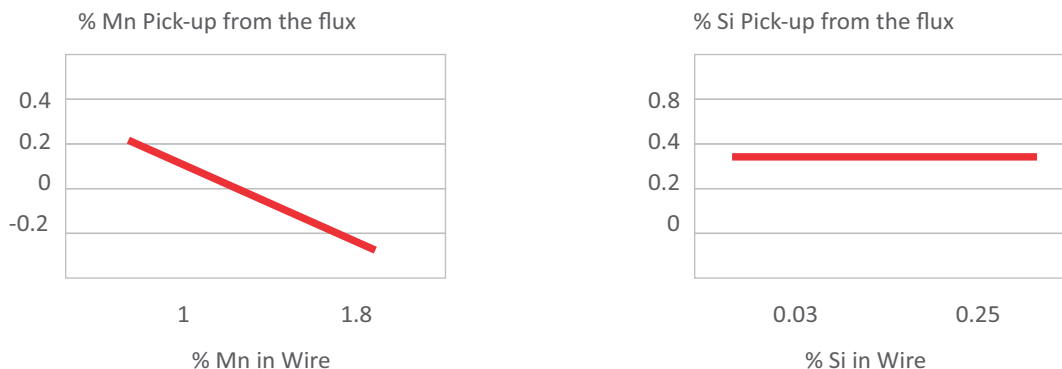
(continue...)



# AUTOMELT B20 PLUS

SAW Flux

## ACTIVITY OF THE FLUX:



## CHEMICAL COMPOSITION OF FLUX:

SiO <sub>2</sub> + TiO <sub>2</sub>	CaO + MgO	Al <sub>2</sub> O <sub>3</sub> + MnO	CaF <sub>2</sub>
20	15	30	30

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

With wire	C	Mn	Si	Ni	Cr	Mo	Other Elements
AUTOMELT EM12K	0.06	1.25	0.40	-	-	-	-
AUTOMELT EH10K	0.07	1.45	0.40	-	-	-	-
AUTOMELT EH12K	0.08	1.50	0.40	-	-	-	-
AUTOMELT EH14	0.08	1.60	0.30	-	-	-	-
AUTOMELT EB2R	0.06	0.90	0.30	-	1.10	0.50	S-0.007; P-0.009; Cu-0.05; As-0.003; Sn-0.003; Sb-0.003
AUTOMELT EB3R	0.07	0.90	0.30	-	2.10	1.00	S-0.007; P-0.009; Cu-0.05; As-0.003; Sn-0.003; Sb-0.003
AUTOMELT EB91	0.07	0.50	0.30	0.55	8.70	0.95	V-0.20; Nb-0.04; N-0.04; Mn+Ni<1.20
AUTOMELT ENi1	0.07	1.40	0.30	0.90	-	-	-
AUTOMELT ENi2	0.08	1.40	0.30	2.20	-	-	-
AUTOMELT ENi3	0.08	1.40	0.30	3.00	-	-	-
AUTOMELT EF2	0.08	1.50	0.40	0.60	-	0.50	-
AUTOMELT EF3	0.08	1.50	0.40	0.90	-	0.50	-
AUTOMELT S3NiCrMo2.5	0.08	1.50	0.40	2.40	0.40	0.50	-

(continue...)



# AUTOMELT B20 PLUS

SAW Flux

MECHANICAL PROPERTIES OF ALL WELD METAL, TYPICAL:									
With wire	Condition	UTS, MPa	YS, MPa	% E	CVN Impact (J)				
					-30°C	-40°C	-50°C	-60°C	-70°C
Automelt EM12K	AW	510	430	28	-	80	50	30	-
Automelt EM12K	PW1	490	400	29	-	80	60	40	-
Automelt EH10K	AW	540	440	27	-	-	60	40	-
Automelt EH10K	PW1	520	420	27	-	-	80	50	-
Automelt EH12K	AW	540	450	27	-	-	70	50	50
Automelt EH12K	PW1	530	430	28	-	-	90	70	-
Automelt EH14	AW	530	440	27	-	-	50	-	-
Automelt EH14	PW1	520	430	28	40	-	60	-	-
Automelt EB2R	PW2	600	490	24	30	-	-	-	-
Automelt EB3R	PW2	630	500	24	-	-	-	-	-
Automelt EB91	PW3	660	570	19	-	-	-	-	-
Automelt ENi1	AW	520	430	29	-	-	50	-	-
Automelt ENi2	AW	530	430	28	-	-	70	40	40
Automelt ENi3	AW	540	440	27	-	-	90	60	-
Automelt EF2	AW	600	480	25	-	-	40	-	-
Automelt EF3	AW	650	570	22	-	-	60	40	-
AUTOMELT S3NiCrMo2.5	AW	850	770	15	-	-	60	40	-

AW – As Welded; PW1 – After Post weld heat treatment of 620°C for 1 hour

PW2 – After Post Weld Heat treatment of 690°C for 1 hour

Pw3 – After Post Weld Heat treatment of 760°C for 2 hour

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

Available in Standard packing of 30 Kg Bag

CREEP TEST DATA (Automelt B20 Plus+Automelt EB2R):				
Condition	Temperature, °C	Stress, MPa	Duration, Hrs	Strain% after 1000 Hrs
PWHT: 690°C for 2 Hrs	500	254	1000	2.40
	550	160	1000	4.09