AUTOMELT B20 PLUS

SAW Fluxes

GENERAL DESCRIPTION:

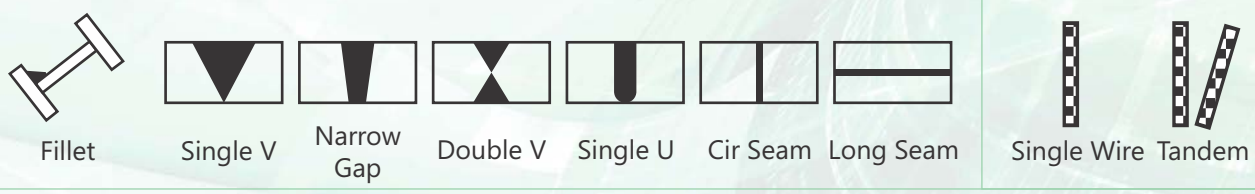
- Agglomerated Flux
- Fluoride-Basic Type Flux
- High Basic Flux having Basicity Index of 3.1
- Neutral behaviour to activity
- Multi-pass Butt and Fillet Welding
- For Carbon & Low Alloy Steels
- Suitable for Narrow Gap Welding
- Suitable for Single & Multi Wire Tandem System
- Suitable for Welding 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 EF1	F8A6-EF1-F1	Multi-pass
AUTOMELT EF2	F8A6-EF2-F2	Multi-pass
AUTOMELT EF3	F9A8-EF3-F3	Multi-pass
AUTOMELT EF4	F8A6-EF4-F4	Multi-pass
AUTOMELT EF5	F11A10-EF5-F5	Multi-pass
AUTOMELT S3NiCrMo2.5	F12A8-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



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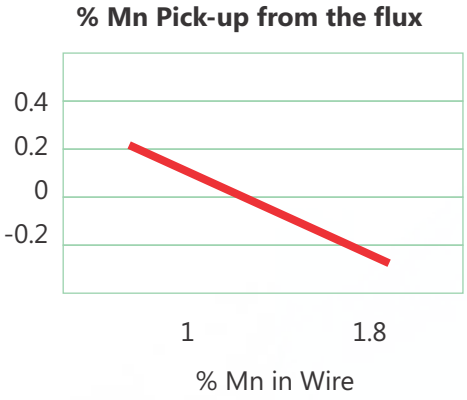
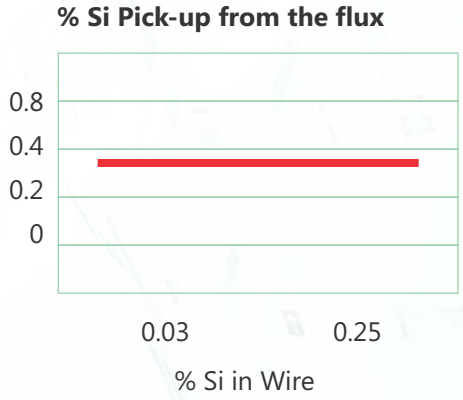
ACTIVITY OF THE FLUX:





CHEMICAL COMPOSITION OF FLUX:

SiO_2 + TiO_2	CaO + MgO	Al_2O_3 + MnO	CaF_2
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 EF1	0.08	1.20	0.40	1.00	--	0.45	
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 EF4	0.08	1.40	0.40	0.50	0.30	0.20	
AUTOMELT EF5	0.08	1.50	0.40	2.20	0.30	0.40	
AUTOMELT S3NiCrMo2.5	0.08	1.50	0.40	2.40	0.40	0.50	

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(continue...)

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 EF1	AW	580	470	25			50		
Automelt EF2	AW	600	480	25			40		
Automelt EF3	AW	650	570	22			60	40	
Automelt EF4	AW	600	490	24			40		
Automelt EF5	AW	820	750	18				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
PW2 – 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

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