

AUTOMELT B21

AWS Classifications:

With Wire	AWS 5.17/5.23	AWS 5.17M/5.23M
Automelt EH10K	F7A6 - EH10K	F48A5 - EH10K
Automelt EH14K	F7A4/P4 - EH14	F48A4/P4 - EH14
Automelt EA2	F8A4 - EA2-A2	F55A4 - EA2-A2
Automelt EA3	F9A2/P2 - EA3-A3	F62A3/P3 - EA3-A3

Characteristics:

Automelt B21 is fluoride-basic type of submerged arc welding with high basicity. It is neutral flux particularly suitable for tandem & multi-wire welding. Due to the neutral design of the flux, pickup/burn-off of Si & Mn from the wire is almost negligible. The high basicity ensures excellent sub-zero impact properties, as well as good resistance to aging.

Basicity	Wall Neutrality No.	Grain Size (mm)
3.1*	5	0.25-1.60

*-As per Boniszewski

Flux Analysis:

SiO ₂ + TiO ₂	CaO + MgO	Al ₂ O ₃ + MnO	CaF ₂
15 %	40 %	20 %	25 %

All Weld Metal Chemistry, wt% (Typical):

With wire	C	Mn	Si	S	P	Mo
Automelt EH10K	0.07	1.50	0.40	<0.025	<0.030	-
Automelt EH14	0.08	1.50	0.30	<0.025	<0.030	-
Automelt EA2	0.07	1.00	0.30	<0.025	<0.030	0.45
Automelt EA3	0.08	1.50	0.30	<0.025	<0.030	0.45

All Weld Metal Mechanical Properties:

With AWL wires	Condition	UTS MPa	YS MPa	E% (I=4Xd)	CVN Impact, J			
					-20 °C	-30 °C	-40 °C	-50 °C
Automelt EH10K	AW	>510	>420	>24	--	>70	>50	>30
Automelt EH14	AW	>530	>420	>24	>70	>50	>30	--
Automelt EH14	PW	>510	>420	>22	>80	>60	>40	--
Automelt EA2	AW	>550	>470	>20	>70	>50	>30	--
Automelt EA3	AW/PW	>620	>540	>17	>50	>30	--	--

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

Type of current / polarity: DC (+) 1000A max.

Redrying Conditions: It is advisable to dry the flux at 300-350 °C for 1 Hr prior to use

Typical Applications:

Automelt B21 is used mainly for the applications involving highest quality of SAW welds, including for nuclear, power, petrochemical and offshore sectors. When used with unalloyed and low alloyed wires makes this flux suitable for welding of pressure vessels, steam generators, reactor safety tanks, etc.

Packing Data

Net Wt. Kgs.

Poly lined paper bags (Standard)	30
Steel Drums (on request)	100



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