

# AUTOMELT S76

## AWS Classifications:

EN 760 A FB 2 55 AC

Approvals : BHEL

### Characteristics:

Automelt S76 is Fluoride-Basic type agglomerated SAW flux for high alloy heat resistant stainless steel welding. Behavior to carbon in weld is strictly neutral therefore can be used for extra low carbon stainless steels. There is no burn-off or pick-up of manganese and silicon. Manganese burn-off occurs only when the wires are used with high Manganese content. The welds are smooth and have fine ripples without undercut at the toe and without the slag residues. Also the slag detachability is very good. It is equally suited to welding on AC and DC (+). It is a hydrogen controlled flux suitable for tandem & multi-arc welding.

### Flux Analysis:

Basicity index No.	~2.7	Grain Size (mm)	0.25-2.00
Wall Neutrality No.	-	Current/polarity	DC(+)/AC~800A max.
Flux Analysis	SiO <sub>2</sub> +TiO <sub>2</sub> ~15%; CaO + MgO~40% Al <sub>2</sub> O <sub>3</sub> +MnO~20%; CaF <sub>2</sub> ~25%		
Redrying & Baking	300-350 °C for one hour before use		

### All Weld Metal Chemistry, wt% (Typical):

AWL Wires	C	Cr	Ni	Mo	Mn	Si	P	S	Cu	Nb
	max						max	max	max	max
Subinox 308	0.08	19.5-22.0	9.0-11.0	0.75 max	1.0-2.5	0.30-0.65	0.03	0.03	0.75	-
Subinox 308L	0.03	19.5-22.0	9.0-11.0	0.75 max	1.0-2.5	0.30-0.65	0.03	0.03	0.75	-
Subinox 347	0.08	19.0-21.5	9.0-11.0	0.75 max	1.0-2.5	0.30-0.65	0.03	0.03	0.75	1xC-1.0%
Subinox 316	0.08	18.0-20.0	11.0-14.0	2.0-3.0	1.0-2.5	0.30-0.65	0.03	0.03	0.75	-
Subinox 316L	0.03	18.0-20.0	11.0-14.0	2.0-3.0	1.0-2.5	0.30-0.65	0.03	0.03	0.75	-
Subinox 410	0.12	11.5-13.5	0.60 max	0.75 max	0.60 max	0.50	0.03	0.03	0.75	
Subinox 430	0.10	15.50-17.0	0.60 max	0.75 max	0.60 max	0.50	0.03	0.03	0.75	

### All Weld Metal Mechanical Properties:

With wires	Condition	UTS MPa	E%	CVN Impact
			(l=4Xd)	°C
				J
Subinox 308	AW	550	35 min	-60
Subinox 308L	AW	520	35 min	-196
Subinox 347	AW	520	30 min	-60
Subinox 316	AW	520	30 min	-60
Subinox 316L	AW	490	30 min	-196
Subinox 410	PW*	520	20 min	-
Subinox 430	PW**	450	20 min	-

AW As Welded PW\* - After PWHT of 1 hr at 745 °C, furnace cooled to 315 °C and then cooled in still air.

PW\*\* - After PWHT of 2 hr at 775 °C, furnace cooled to 595 °C and then cooled in still air.

Above values subjected to change if parameters are varied markedly.

### Typical Applications:

For joint welding of High alloy Cr-Ni stainless steels.

### Packing Data

Net Wt. Kgs.

Poly lined paper bags (Standard)

30

Steel Drums (on demand)

100



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