



**SAW Fluxes**  
**AUTOMELT S33**







**GENERAL DESCRIPTION:**

- Agglomerated Flux
- Fluoride-Basic Type Flux
- High Basic Flux having Basicity Index of 3.1
- Neutral Behaviour to Carbon, so Low C weld metal is produced with Low C Wire
- Non-Chromium Compensating
- Chromium Burnout is very less
- Multi-pass Butt and Fillet Welding
- For Stainless Steels
- Suitable for Welding Speeds of 0.40 – 0.60 m/min
- Grain Size – 0.25-1.60 mm
- Type of Current – DCEP

**TYPICAL APPLICATIONS :**

- Welding of High Alloy Stainless steels including Duplex and Superduplex Stainless Steels
- Most suitable for welding Cryogenic Vessels

 Fillet	 Single V	 Double V	 Single Wire
--	--	--	---

**APPROVALS:**

ABS

**CHEMICAL COMPOSITION OF FLUX:**

<b>SiO<sub>2</sub> + TiO<sub>2</sub></b>	<b>Al<sub>2</sub>O<sub>3</sub> + MnO</b>	<b>CaF<sub>2</sub></b>
10	35	50

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

With wire	C	Mn	Si	Cr	Ni	Mo	Other Elements
<b>Subinox 308L</b>	0.025	1.40	0.50	19.5	9.3	--	--
<b>Subinox 308H</b>	0.05	1.40	0.50	19.5	9.2	--	--
<b>Subinox 316L</b>	0.025	1.40	0.50	18.5	11.5	2.3	--
<b>Subinox 347</b>	0.050	1.40	0.50	19.5	9.5	--	Nb + Ta – 0.50
<b>Subinox 309L</b>	0.025	1.40	0.50	23.5	12.5	--	--
<b>Subinox 309LMo</b>	0.025	1.40	0.50	23.5	12.2	2.2	--
<b>Subinox 410</b>	0.07	0.50	0.30	12.5	--	--	--
<b>Subinox 410NiMo</b>	0.03	0.50	0.30	12.5	4.5	0.50	--
<b>Subinox 430</b>	0.05	0.50	0.30	16.5	--	3.0	--
<b>Subinox 2209</b>	0.025	1.30	0.50	22.0	9.0	3.5	N – 0.12
<b>Subinox 2553</b>	0.03	1.30	0.50	25.0	7.0	4.0	N – 0.15; Cu – 2.0
<b>Subinox 2594</b>	0.025	0.60	0.50	24.5	8.5		N-0.25, W-0.1

(continue...)



SAW Fluxes  
**AUTOMELT S33**



**MECHANICAL PROPERTIES OF ALL WELD METAL, TYPICAL:**

With wire	Condition	UTS, MPa	% El.	CVN Impact	
				-50°C	-196°C
<b>Subinox 308L</b>	AW	580	37	90	50
<b>SUBINOX 308H</b>	AW	600	37		
<b>Subinox 316L</b>	AW	580	37	90	40
<b>Subinox 347</b>	AW	600	35	90	
<b>Subinox 309L</b>	AW	600	35	90	
<b>SUBINOX 309LMo</b>	AW	620	35		
<b>Subinox 410</b>	AW	700	25	50	
<b>Subinox 410NiMo</b>	AW	750	23	50	
<b>Subinox 430</b>	AW	700	25	50	
<b>Subinox 2209</b>	AW	780	27	70	
<b>Subinox 2553</b>	AW	780	25	50	
<b>Subinox 2594</b>	AW	650	27	70	

AW – As Welded

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