



SAW Fluxes **AUTOMELT A57**



GENERAL DESCRIPTION:

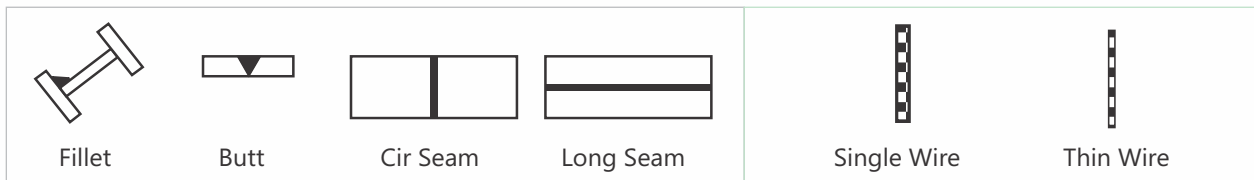
- Agglomerated Flux
- Aluminate-Rutile Type Flux
- Acidic Flux having Basicity Index of 0.5
- Active Flux with moderate Si and Mn pick-up
- For Single and Multi-pass Butt and fillet welding (With EM12K Wire restrict to 15 mm thickness for multi-pass)
- For Carbon Steels
- Suitable for Single Wire System & thin wire SAW
- Suitable for Welding Speeds of 0.20-0.75 m/min
- Grain Size – 0.25-1.60 mm
- Type of Current – DCEP 800A
- Wall Neutrality Number with EL8 Wire is 60

CLASSIFICATION :

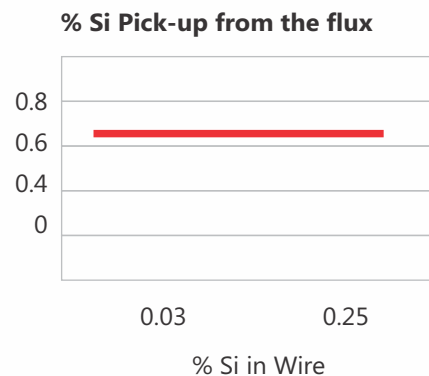
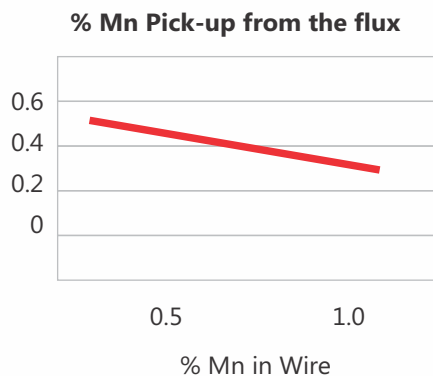
| With Wire | AWS 5.17/5.23 | Single / Multi-pass |
|-----------------------|---------------|---------------------|
| AUTOMELT EL8 | F7AZ/PZ-EL8 | Multi-pass |
| AUTOMELT EL12 | F7AZ/PZ-EL12 | Multi-pass |
| AUTOMELT EM12K | F7AZ-EM12K | Limited Multi-pass |
| AUTOMELT EH11K | F7AZ-EH11K | Single Pass |

TYPICAL APPLICATIONS :

- General Structural Welding
- Long Seam and Cir Seam Welding of Pipes
- Fabrication of Cylinders and vessels



ACTIVITY OF THE FLUX:



(continue...)



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CHEMICAL COMPOSITION OF FLUX:

| SiO ₂ + TiO ₂ | CaO + MgO | Al ₂ O ₃ + MnO | CaF ₂ |
|-------------------------------------|-----------|--------------------------------------|------------------|
| 25 | 10 | 55 | 5 |

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

| With wire | C | Mn | Si |
|----------------|------|------|------|
| Automelt EL8 | 0.07 | 1.00 | 0.70 |
| Automelt EL12 | 0.08 | 1.10 | 0.70 |
| Automelt EM12K | 0.07 | 1.30 | 0.80 |
| Automelt EH11K | 0.07 | 1.90 | 1.20 |

MECHANICAL PROPERTIES OF ALL WELD METAL, TYPICAL:

| With wire | Condition | UTS, MPa | YS, MPa | % E | CVN Impact (J) 0°C |
|----------------|-----------|----------|---------|-----|--------------------|
| Automelt EL8 | AW | 530 | 440 | 25 | 40 |
| Automelt EL8 | PW | 500 | 420 | 27 | 50 |
| Automelt EL12 | AW | 540 | 450 | 26 | 40 |
| Automelt EL12 | PW | 510 | 430 | 28 | 50 |
| Automelt EM12K | AW | 540 | 450 | 28 | 40 |

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

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