



TECHNICAL DATA SHEET

PAI-826 No Clean Liquid Flux

PAI-826 No-clean Liquid Flux is designed for both tin-lead and lead-free wave soldering. It contains modified rosin and organic activator to resist higher pre-heat temperature and provide good process ability on high component density PWB. Solder ability and wetting ability are greatly increased while Solder Bridge and residue are greatly reduced. The surface insulation resistance test (SIR) of PAI-826 is very high under unclean condition and follows the spec of IPC-TM-650 2.6.3.3.

Thinner

Used for adjusting flux concentration.

Applying Method

Foam, Spray & Wave methods.

Application Indications

1. The flux should be supplied with compressed air free of oil and water when using spray method.
2. Keep cap closed to avoid evaporation of flux, moisture absorption, and contamination.
3. Replace the flux in tank periodically (less than 40 hours of operation) or the solder ability will decay.
4. The recycling flux will accumulate the pollutant and piece gradually, must follow amount of production and time in order to ensure the result of use. Change new flux before flux efficiency is reduced. Changing flux had better wash through and pipeline with the cleaner first and then pour into new flux.
5. Follow the recommended flux application quantity. Excess flux applied will cause poor solder ability because flux gathers into droplets. Flux droplets flow into pallet may cause surface contamination and be harmful to electrochemical reliability.

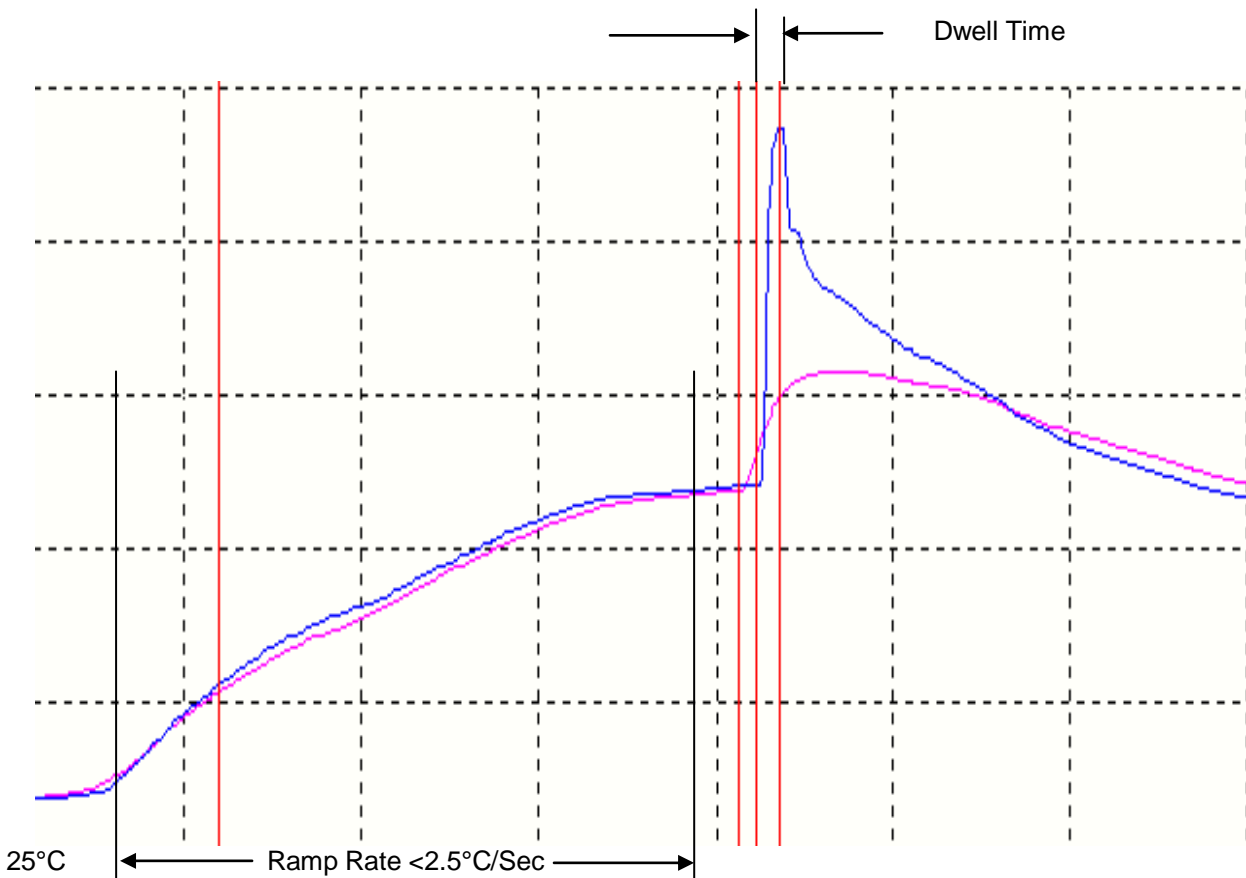
Features & Benefits

1. Can be used in Lead-free processes.
2. Solder bridge and residue are greatly reduced.
3. Solder ability and wetting ability are great.
4. To resist higher pre-heat temperature and provide good process ability on high component density PWB.
- 5 Good hole-fills demonstrated by good yield in Lead-Free applications.



Operating Parameter

| Item | Typical Level |
|------------------------------------|---|
| Amount of Flux Applied | Foam: 500~1200 $\mu\text{g}/\text{in}^2$ of solids/ in^2 Spray: 500~1200 $\mu\text{g}/\text{in}^2$ of solids/ in^2 |
| Topside Preheat Temperature | 80°C ~140°C |
| Bottom side Preheat Temperature | 100°C ~145°C |
| Maximum Ramp Rate of Topside Temp. | 2.5°C/second maximum |
| Conveyor Speed | 0.7~1.7m/min. Best (0.9~1.3 m/min) |
| Conveyor Angle | 4° Δ ~8° Δ (5.5° Δ most common) |
| Dwell Time | 2 ~ 6 sec |
| Solder Pot Temp. | 255°C ~265°C (Sn/Ag3.0~4.0/Cu 0.5~0.9 Solder Bar) 265°C ~280°C (Sn/Cu 0.7 Solder Bar) 255°C ~260°C (Sn/Pb37 Solder Bar) |



These are general guidelines which have proven to yield excellent results; however, depending upon your equipment, components, and circuit boards, your optimal settings may be different



Technical Specification

| Item | Result |
|------------------------|------------------------------------|
| Appearance | Transparent to Light Yellow Liquid |
| Specific Gravity, 25°C | 0.803 ± 0.007 |
| Acid Number, mg KOH/g | 27.0 ± 6.0 |
| Solids Content, % | 4.6 ± 0.3 |

Physical Properties & Reliability Data

| Item | Result | Test Method |
|--|--|---|
| Copper Mirror Test | PASS No Complete Removal of Copper | IPC TM 650 2.3.32 |
| Copper Corrosion Test | PASS, No Corrosion | IPC TM 650 2.6.15 |
| S.I.R Test, Unclean Requirements: Test Board: $\geq 1.0 \times 10^8 \Omega$ Control Board: $\geq 1.0 \times 10^9 \Omega$ | Test Board unclean, S.I.R Test : PASS S.I.R : $1.24 \times 10^9 \Omega$ | IPC TM 650 2.6.3.3 85°C, 85%RH, 168hrs, 50V IPC-B-25, 12.5 mil line/space |
| Electro migration Test Requirements: No Dendrites or Corrosion | Test Board unclean, Electro migration Test : PASS Electro migration Test: $1.03 \times 10^9 \Omega$ | Electro Migration test for HP. Test spec: EL-EN861-00 50°C, 90%RH, 672hrs, DC 5V IPC- B-25 Pattern B, 12.5 mil line/space |

Storage, Shelf Life Indication

Store in cool place and tighten the cap. Do not expose to sunlight or heat source. 12 Months from the Date of manufacturing.

Safety Indication

The flux must not be used near open flames or near non-flameproof electrical equipment. Please refer to the Material Safety Data Sheet as the primary source of health and safety information.

For more details, please visit Our Website at www.persangalloy.com or write to us.

Regd Off & Works:
353, GIDC Estate, Waghodia-391760. Dist : Vadodara.
Phone: +91 2668 262718-9. Fax : +91 2668 262556
E-Mail : sales@persangalloy.com URL:www.persangalloy.com