



TECHNICAL DATA SHEET

CATEGORY: **ROSIN BASED LIQUID FLUX**
NAME: **R100-25**

FEATURES

- PURE WHITE WATER GUM ROSIN FLUX
- NON CORROSIVE RESIDUES
- NON-HYDROSCOPIC RESIDUES
- HALIDE FREE
- RESIDUES REMOVABLE WITH A SAPONIFIER
- CAN BE FOAMED, SPRAYED, DIPPED OR BRUSHED

DESCRIPTION

R100-25 is a medium solids, non-activated liquid flux with a solvent rosin activation formulated to provide a post-process flux residue that is both insulating and non-hydroscopic and does not require cleaning. As a non-activated rosin based flux, R100-25 offers a halide free formulation, good cleaning properties, and excellent thermal transfer.

PHYSICAL PROPERTIES

SOLIDS CONTENT	FLUX DENSITY	ACID NUMBER
25%	.83 ± .02	41.8 ± .05

HANDLING

- R100-25 has a sealed shelf life of two (2) years. Do not freeze this product.
- Do not store near fire or flame. Keep away from sunlight as it may degrade product.
- R100-25 is shipped ready-to-use; no mixing is necessary.
- Do not mix used and unused chemical in the same container. Reseal any opened containers.

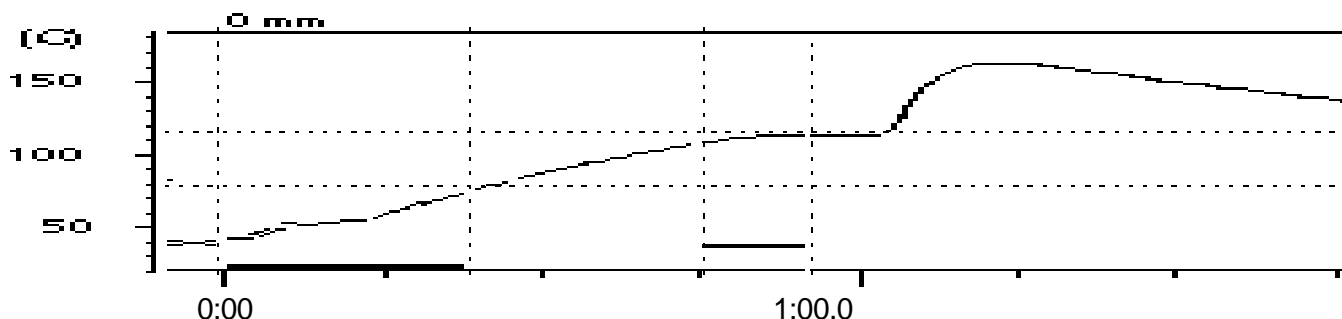
FLUX APPLICATION

- When being used for rework, application should be limited to the area being worked. AIM Flux Dispensers or a cotton swab are recommended for localized flux application.
- For most tinning operations, the component lead should be immersed into the flux to a depth of approximately 50% of the desired solder flow in order to prevent excessive flux application.
- For spray fluxing applications, R100-25 is ready to use directly from its container; no thinning is required.
- When spray fluxing, it is imperative that proper flux coverage and uniformity be achieved and maintained. A dry flux coating of 500 to 1500 micrograms per square inch is recommended as a starting point.
- When foam fluxing, air stones should be supplied with compressed air, free of oil and moisture. Adjust foam head to achieve a uniform distribution of small bubbles for optimum flux coverage.
- During foaming applications it is periodically necessary to add flux thinner to replace that which is lost through evaporation. AIM Common Flux Thinner is recommended.

PROCESS CONTROL

Specific gravity should be monitored and controlled either with automated equipment or manually with a hydrometer. Specific gravity should be maintained at $83 \pm .02$ for optimum performance. Dump and refill flux pot with fresh flux at least once per week when used daily. For spray flux applications, ensure that proper coverage of pwb is maintained.

THERMAL PROFILE



RATE of RISE 2-3 °C / SEC MAX	PROGRESS THROUGH 66°C - 77°C (150 - 170°F) £ 40 SECONDS	PCB TOP SIDE TEMP 102°C - 115°C (215°F - 240°F) JUST BEFORE WAVE	COOLDOWN £ 4°C
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NOTE:

BOTTOM SIDE TEMPERATURE SHOULD BE BETWEEN 250° - 310°F, (121° - 154°C)

FLUX TECH-TIPS

PROBLEM

POTENTIAL CAUSE

- **BRIDGING:** INSUFFICIENT FLUX, EXCESSIVE PRE-HEAT, EXCESS CONVEYOR SPEED, SOLDER CONTAMINATION
- **SOLDER BALLS:** LOW PREHEAT TEMPERATURE, EXCESS FLUX
- **WHITE RESIDUE:** EXCESS FLUX, FLUX CONTAMINATION, SOLDER CONTAMINATION
- **DISCOLORED JOINT:** SOLDER OXIDATION, BOARD/COMPONENT CONTAMINATION, EXCESSIVE HEAT

CLEANING

Post-process residues are considered to be non-corrosive, and may remain on the work piece post-soldering. If residue removal is required for conformal coating or conformance to specific ionic cleanliness specifications, this can easily be accomplished with the use of a saponifier and water. AIMTERGE 520A is recommended.

PACKAGING

R100-25 comes packaged in 8-oz spray bottles, 1 and 5 gallon containers, and 55-gallon drums.

SAFETY

- Use with adequate ventilation and proper personal protective equipment.
- Refer to the accompanying **Material Safety Data Sheet** for any specific emergency information.
- Do not dispose of any waste materials in non-approved containers.

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