



## ARBITAL Solutions

### Product Data Sheet : **ARSOL 220 Flux**

#### DESCRIPTION

ARSOL 220 is a Halide and Halogen free, rosin/resin free, low solids, no-clean flux, with fine wetting properties, used for both Pb free and Sn/Pb applications.

It is formulated for wave and Selective soldering of through-hole, mixed technology, and surface mount assemblies. The flux produces a tack-free surface with high surface insulation resistance and truly little residue to interfere with electrical testing. The flux has been specifically formulated to resist degradation in surface insulation resistance and electro migration, even in situations where the flux does not experience soldering temperatures and when heavy levels of flux have been applied. The residues are non-corrosive and do not cause "greening" when in contact with copper or copper-bearing alloys.

Particularly developed for touch-up/rework when supplied in a flux pen.

#### FEATURES AND BENEFITS

- Complies with Halide free standards.
- High activity which is environment friendly.
- Fine soldering in both single and dual wave soldering process and Very safe residues.
- High temperature stability.
- Less surface tension and high through hole penetration rate.
- Good cosmetics,
- No need to clean.
- Non-hygroscopic.
- Tack-free and non-corrosive residues.
- Good soldering in air; excellent soldering in nitrogen for low defects, •
- Will not cause "greening" on exposed copper/copper alloys
- ARSOL-220 is suitable for use on the following metal surface, provided the surfaces are not heavily tarnished.  
Cadmium, OSP, Tin, Copper, Gold, Zinc and Silver.

#### APPLICATIONS

Can be applied by Foam, spray, Dipping and brushing application. Uniform coating of flux is required on the board to achieve good results. To meet electrical stability and consistent soldering performance, materials used shall comply with Ionic cleanliness.

| <b>OPERATING PARAMETER</b>  |  |
|---|--|
| Amount of Flux Applied  | 1,200 – 2,000 µg/in <sup>2</sup> solids                  |
| Top-Side Preheat Temperature  | 90 - 120°C   |
| Bottom side Preheat Temperature   | 110 - 140°C  |
| Maximum Ramp Rate of Topside Temperature (to avoid component damage)  | 3°C/second (35°F/second) maximum                         |
| Contact Time in the Solder (includes Chip Wave and Primary Wave)  | 3 – 6 seconds  |
| Wave contact angle  | 4° ~ 6°  |
| Solder Pot Temperature:   | 245-255°C for 63/37, 255-265°C for Lead Free SAC alloys. |
| <p>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. In order to optimize your process, it is recommended to perform a design experiment, optimizing the most important variables (amount of flux applied, conveyor speed, topside preheat temperature, solder pot temperature and board orientation).</p> |  |

## PHYSICAL AND CHEMICAL PROPERTIES

|                             |  |
|-----------------------------|--|
| Appearance:                 | Colour less  |
| Acid number mg KOH/g:       | 17.0   |
| IPC-J-STD-0004 Designation: | ORL0   |
| Flash point:                | 15°C   |
| Solids Content, wt/wt       | 2.0%   |
| Specific gravity @ 25°C:    | 0.784 (Recommended additive: Arsol-220, to maintain the specific gravity in foam and dip soldering application).                 |
| Reliability :               | Meets IPC, JIS for corrosion and copper mirror tests, Bellcore Surface Insulation Resistance and Electro migration requirements. |
| Shelf Life :                | 18 months  |

### **RESIDUE REMOVAL:**

**ARSOL-220** Flux is a no-clean, flux residues are designed to be left on the board.

If desired, Flux residues can be removed with water Based cleaner AS Aqua Clean-7, Solvent based cleaners Biosol G-10, Biosol G-25 cleaner or EG grade IPA.

### **TOUCH-UP/REWORK:**

**ARSOL-220** is recommended for hand soldering applications.

## PACKAGING

Packaging is available in 5 and 20 Litres.



## HEALTH AND SAFETY

Observe standard precautions for handling. Eye and skin protection must be provided. Avoid breathing of liquid.

Use in well ventilated areas, DO NOT SMOKE, use of solvent resistant gloves.

Flammable, keep away from sparks and open flames.

Remove skin splashes by immediate washing with soap and water.

For detailed information refer to the Safety Data Sheet (MSDS) available on request.

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