Data Sheet

E-QUAL 2002NC WAVE SOLDERING FLUX

Description

E-Qual 2002NC meets all the requirements of the IPC SF-818 Standard for classification as Flux Type L3NC for use with the electronic circuit assemblies of the highest reliability.

It is halide free and complies with the requirements of Bell TR-TSY-000078 for S.I.R. values.

It is rosin free and contains 2.1% solids so the residues after soldering are barely visible, tack free and non-corrosive. These are minimum residues on the equipment and accurate pin testing is guaranteed.

The activity of E-Qual 2002NC ensures fast, positive solder wetting and bright defect free solder joints.

The flux is designed for foam application but it is also suitable for dip and spray. E-Qual 2002NC can be used in air or inert atmospheres. Cleaning is not essential even if conformal coatings are to be applied but residues can be removed from both boards and fixtures using hot water/mechanical brush spray equipment. A saponifier can be added if required.

E-Qual 2002NC is compatible with all the commonly used finishes on bare printed circuit boards and components.

Physical Properties

Appearance	:	Pale yellow, clear liquid
Specific Gravity	:	0.808 ± 0.005 at 25°C
Flash Point	:	14°C (TCC)
Solid Content	:	2.1% w/w
Acid Number	:	11 ± 2 (mg/KOH)
Halide Content	:	Zero

Use of E-Qual 2002NC

- Apply by dip, foaming or spray techniques.
- Maintain the flux density and acid number by using E-Qual Thinners.
- Recommend top of board temperatures pre-heat is 85°C to 105°C. This will vary at the same machine settings in relation to the "heat sink" of the board i.e. densely populated boards will require more heat and slower track speeds to attain the same temperature. This may result in a shallow solder fillet.
- Solder wave temperature should be 225°C - 255°C. The lower temperatures are possible with high purity solders and also with less densely populated boards.
- Please note that slower track speed mean smaller solder fillets will be formed.

Residue Removal

The residues from E-Qual 2002NC are non corrosive and are safe to leave on the assembly but the small amount of residue can be removed in hot water sprays by brushing. Saponifiers can be used, but please check with the solder mask supplier that it is compatible and consistent with your specified S.I.R. values.

Control of Process

Either: -

1. Use hydrometers to maintain the specific gravity at 0.808 ± 0.005.
2. Chemically titrate the titration kit.
3. Maintain the equipment in a clean condition.

Handling and Safety

1. Read the material safety data sheet and ensure that you are familiar with health and safety implications before handling or using this product.
2. Always use in a well ventilated area.
3. Avoid contact with your person
4. This product and its Thinners are highly flammable liquids.
5. Handle with care, avoid contact with hot surfaces, sparks, naked flames etc. DO NOT SMOKE.
6. Keep containers tightly closed and store in the approved manner.
7. Even when the drum is empty, it is essential to remain vigilant.

NOTE

The information and recommendations contained in this data sheet are based on data believed to be reliable. However no warranty expressed or implied is made to the accuracy of such data or its suitability for a given situation.

E-Qual 2002NC Features and Benefits

*	Low Solids	→	Low residue
*	No halides	→	Non corrosive residue
*	Good activity	→	Water wash (if necessary)
*	No resin	→	High S.I.R. values
*	No rosin	→	Bright joints
*	Can be applied dip	→	High yields
*	Use in air or nitrogen	→	Good positive wetting
*	Classified IPC-SF 818 L3NC		
*	No pick up on equipment		
*	Can be used on all types of equipment		
*	OK for conformal coating		
*	Pin testable		