



# QUALITEK®

## 305 Flux Rosin No-Clean

### DESCRIPTION

305 no-clean flux provides superior soldering performance with single and double-sided PTH boards. 305 eliminates skips and shorts often experienced in surface mount assembly wave soldering. The activity is comparable to RMA fluxes, and leaves virtually no residue on the assembly after soldering. There are no residues to hinder electrical testing, and the expense of cleaning is eliminated.

### BENEFITS

- Non-corrosive, non-conductive residue
- Excellent wetting
- Bright, shiny solder joints
- No cleaning required

### APPLICATION METHODS

305 no-clean flux may be applied by foam, spray, or wave methods. Flux deposition, density, and uniformity are critical to successful use of low solids no-clean flux. After foam or wave application, an air knife should be used to remove excess flux from the assembly. Pre-heating the assembly will partially volatilize the solvents, enhance oxide removal, and promote optimum wicking and solder joint formation. The optimum pre-heat temperature range is 90°–110°C (194°–230°F) on the top side of the assembly.

### PACKAGING & STORAGE

305 flux is available in 1, 5 and 55 gallon containers. It should be stored in cool, dry place away from ignition sources.

### PHYSICAL & CHEMICAL CHARACTERISTICS

<b>Color and Appearance</b>	Light Amber Liquid
<b>Solids Content, % (By Wt.)</b>	4.7-5.3
<b>Specific Gravity</b>	0.795 +/- 0.006
<b>Flash Point</b>	53°F
<b>Surface Insulation Resistance- Ohms</b>	
J-STD-004	>1.00 x 10 <sup>11</sup>
<b>Acid Number</b>	24.0 - 27.0
<b>Flux Classification per J-STD-004</b>	ROLO
<b>Copper Mirror Test</b>	Pass (No complete breakthrough)
<b>Silver Chromate Test</b>	Pass (No discoloration)
<b>Spot Test</b>	Pass (No color change)
<b>Corrosion Test</b>	Pass (No evidence of corrosion)
<b>Shelf life (un-opened)</b>	2 years

### PROCESS CONTROL

Control of the flux is necessary to ensure a consistent amount of flux is applied to assemblies. Due to the very low solids percentage of no-clean fluxes, specific gravity is not an accurate measure for solids content. Monitoring and controlling acid number is recommended to maintain the proper flux concentration. Titration may be accomplished with the Qualitek HDT-200 Digital Titration Kit. Control of the flux can be achieved with Qualitek 300A thinner. Debris and contaminants will accumulate in the flux reservoir. Periodically, the replacement of the flux is required for consistent soldering performance, and to prevent debris build-up on the circuit assembly. This should be performed every 35-40 hours of operation.

Qualitek® is a trademark of Qualitek International, Inc.

TEL: (630) 628-8083 FAX: (630) 628-6543 E-MAIL: [solder@qualitek.com](mailto:solder@qualitek.com) HOME PAGE: <http://www.qualitek.com>

HEADQUARTERS: 315 Fairbank St., Addison, IL 60101 U.S.A.

WORLDWIDE BRANCHES: UNITED KINGDOM – MEXICO – CHINA – PHILLIPINES - SINGAPORE

**QUALITEK INTERNATIONAL, INC. AN ISO 9002 CERTIFIED COMPANY**

This data is based on information that the manufacturer believed to be reliable and offered in good faith. Qualitek International, Inc. makes no warranties expressed or implied as to its accuracy and assumes no responsibilities and liabilities arising out of its use by others as conditions and methods of use of the products is beyond the control of Qualitek International, Inc. The user must determine the suitability of the product before using it on a commercial basis. The warranties extend only to the conformity of the product to the physical descriptions. In no event will Qualitek International, Inc. be responsible for special, incidental and consequential damages whether the claim is in contract, negligence or otherwise.

Rev: 040599-305

Consult MSDS for health and safety information