

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2002
 DateRun: 08/27/2002
 Experimenters: Jason Marshall, Heidi Wilcox
 ClientType: Electronics Manufacturer
 ProjectNumber: Project #2
 Substrates: Electronics
 PartType: Part
 Contaminants: Fluxes, Solder
 Cleaning Methods: Ultrasonics
 Analytical Methods: Visual
 Purpose: To clean client supplied parts using successful cleaners

Experimental Procedure: Five products from the previous trial were used to clean several supplied parts. Three products were used at full strength and the two aqueous products were used at 10%, diluted with DI water in 600 ml beakers. Four products were degassed for 5 minutes in a Crest 40 kHz ultrasonic tank and the fifth product was degassed in a Branson 40 kHz ultrasonic tank. Four small boards were cleaned in the Crest unit, and one large board was cleaned for 5 and 10 minutes in the Branson tank. Parts were dried using air blow off for 2 minutes at room temperature. Parts were initially viewed for cleanliness and then sent back to the client for further inspection.

Results: Most of the products appeared to remove the flux/solder from the circuit boards. The following are the observations made during cleaning

Table 1. Visual Inspection

Cleaner	Observation	Part Size
Bio T Max	Flux could still be seen on the board	Small
DS-108	Visually clean, one of the better cleaners	Small, medium (cleaned in Branson unit)
Ionox HC 2	Did a good job of removing the flux	Large board (Branson unit)
SWR One	Visually clean, one of the better cleaners	Small
Beyond 2005	Did a good job of removing flux	Small

Summary:

Substrates:	Electronics				
Contaminants:	Fluxes, Solder				
Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Bio Chem Systems	Bio T Max	100		<input type="checkbox"/>	
Dysol	DS 108 Wipe Solvent	100		<input checked="" type="checkbox"/>	
Kyzen Corporation	Ionox HC 2	100		<input checked="" type="checkbox"/>	
SWR Corporation	SWR One	10		<input checked="" type="checkbox"/>	
Today & Beyond	Beyond 2005	10		<input checked="" type="checkbox"/>	

Conclusion: All parts were sent back to client for further cleanliness analysis.