

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 1995  
 DateRun: 04/06/1995  
 Experimenters: Donald Garlotta  
 ClientType: Electrical Manufacturer  
 ProjectNumber: Project #1  
 Substrates: Aluminum, Gold  
 PartType: Part  
 Contaminants: Fluxes, Resins/Rosins  
 Cleaning Methods: Immersion/Soak  
 Analytical Methods: Black light, Visual

Purpose: Determine effectiveness of three cleaners

Experimental Procedure: The purpose of this trial is to determine the effectiveness of three different cleaners for the removal of flux for Electrical Manufacturer. Cleaning was performed for fifteen minutes at 160o F in a beaker agitated with a stir-bar. Rinsing was performed in a tap water bath followed by a DI water bath. Both rinses were for 5 minutes at 140 F. The parts were then dried under an air knife for two minutes and in a convection oven for 60 minutes (at 210 F). After drying the parts were visually observed for any residual flux and/or water spotting.

SUBSTRATE MATERIAL: Gold-Coated Aluminum  
 CONTAMINANTS: Rosin Solder Flux  
 CONTAMINATING PROCESS USED: received contaminated from Electrical Manufacturer

Results: The black light showed that all the flux was removed from the part cleaned with the Calgon Geo-Guard 2215. There was a problem of water spotting on the parts. Both WR Grace cleaners were ineffective in removing the flux from the parts.

Summary:

<b>Substrates:</b>		Aluminum, Gold			
<b>Contaminants:</b>		Fluxes, Resins/Rosins			
<b>Company Name:</b>	<b>Product Name:</b>	<b>Conc.:</b>	<b>Efficiency:</b>	<b>Effective:</b>	<b>Observations:</b>
Calgon Corporation	Geo Guard 2215	4		<input checked="" type="checkbox"/>	
Magnaflux	Daraclean 211	10		<input type="checkbox"/>	
Magnaflux	Daraclean 212	10		<input type="checkbox"/>	

Conclusion: The Geo-Guard 2215 seems to be a suitable chemistry for Electrical Manufacturer's needs. The water spotting could be a big problem, so a new rinsing and drying method needs to be determined.