

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:

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