

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 1996

DateRun: 03/04/1996

Experimenters: Jay Jankauskas, Sutherland Ramesh

ClientType: Coatings Manufacturer

ProjectNumber: Project #1

Substrates: Stainless Steel

PartType: Coupon

Contaminants: Adhesive, Coatings

Cleaning Methods: Immersion/Soak

Analytical Methods: Peel test

Purpose: To determine the most effective aqueous cleaner

Experimental Procedure: The purpose of this trial is to determine the most effective aqueous chemistry in removing the basecoat #51144 coating for Coatings Manufacturer. Seven chemistries will be tested at identical cleaning conditions (160F for 30 minutes with stir-bar agitation). The concentration of chemistry used will start out at 50% and decrease by increments of 10 %. Cleanliness will be determined by a peel test. If an aqueous chemistry is effective, the urethane should easily be peeled off of coupon after cleaning.
SUBSTRATE MATERIAL: 304 Stainless Steel Coupons
CONTAMINANTS: Durane Base Coatings #51144
CONTAMINATING PROCESS USED: Rubbed on with swab and allowed to cure overnight

Results:	Conc	Aluminex 5761	Aluminex 5834	Aquaclean 4874	Polyspray P	69MC	Polyspray XS	Polyspray C
	50%	X	X	*	X	X	X	
	40%			*	X	X		
	30%					X		
	20%					X		
	10%							

*The Aquaclean works on a dissolving mechanism (due to high glycol ether content) performed a 100% removal.

X-indicates that the Basecoat #51144 was able to be peeled off of the coupon after cleaning

Summary:

Substrates:	Stainless Steel					
Contaminants:	Adhesive, Coatings					
Company Name:		Product Name:	Conc.:	Efficiency:	Effective:	Observations:
US Polychem Corporation		Polyspray Jet 790 C	50		<input type="checkbox"/>	10, 20, 30, 40
US Polychem Corporation		Polyspray Jet 790 P	50		<input type="checkbox"/>	10, 20, 30, 40
US Polychem Corporation		Polyspray Jet 790 XS	50		<input type="checkbox"/>	10, 20, 30, 40
US Polychem Corporation		Product 69 MC	50		<input checked="" type="checkbox"/>	10, 20, 30, 40
General Chemical Corporation		Aluminex 5834	50		<input type="checkbox"/>	10, 20, 30, 40
General Chemical Corporation		Aquaclean 4784	50		<input type="checkbox"/>	10, 20, 30, 40
General Chemical Corporation		Aluminex 5761	50		<input type="checkbox"/>	10, 20, 30, 40

Conclusion: U.S. Polychem's 69MC outperformed all other aqueous cleaners tested to date.