CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2003

DateRun: 02/02/2003

Experimenters: Jason Marshall

ClientType: Manufactures parts for Semi-Conductor Industry

ProjectNumber: Project #1

Substrates: Ceramics, Glass/Quartz, Alumina

PartType: Part

Contaminants: Waxes

Cleaning Methods: Manual Wipe

Analytical Methods: Visual

Purpose: To evaluate cleaners on removal of wax from supplied plates

Experimental Procedure: Six products from the previous trials were selected. All were used at room temperature at full strength. A Kimtowels Wipers WypAll L20 paper towel was soaked with each solution. The towel was used to manually wipe the various substrates in an attempt to remove the surface wax. Each solution was timed to determine how fast the product worked. After cleaning, the parts were wiped dry with a fresh paper towel. Cleanliness was determined visually. The wax removed was Roger Reed 98033.

Results: All six products were successful in removing the surface wax from the varying substrates. The table below lists the times required to remove the wax using manual wiping with a paper towel soaked with cleaning solutions.

Table 1. Wax Removal Times

Cleaner	Substrate	Time (sec)
Opti Clear	glass	15-20
Citirkleen	aluminum nitride	20
Bio T 200 A	silicon	25-30
Citrus Burst 7	glass	30-40
DS 108	silicon	30
Canola Gold	aluminum nitride	40

Summary:

Substrates:	Ceramics, Glass/Quartz, Alumina				
Contaminants:	Waxes				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
National Diagnostic	Opti Clear	100	0.00	☑	Glass
Pentone Corporation	Citrikleen XPC	100	0.00	☑	Aluminum Nitride
Bio Chem Systems	Bio T 200 A	100	0.00	☑	Silicon
Florida Chemical Company	Citrus Burst 7	100	0.00	☑	Glass
Dysol	DS 108 Wipe Solvent	100	0.00	☑	Silicon
AG Environmental Products	Canola Gold CE110	100	0.00	☑	Aluminum Nitride

Conclusion: All products were capable of removing the surface wax in less than 45 seconds. Testing will continue to identify alternatives for Vehicle 210 lapping oil and abrasives.