CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2005

DateRun: 08/03/2005

Experimenters: Jason Marshall

ClientType: Metal

ProjectNumber: Project #1

Substrates: Aluminum

PartType: Part

Contaminants: Mold Releases, Graphite

Cleaning Methods: Ultrasonics

Analytical Methods: Photography, Visual

Purpose: To evaluate one product at two dilutions on supplied parts using ultrasonic cleaning

Experimental Procedure: One product was diluted to 10% and 5% concentrations. Each solution was suspended in water heated to 120 in a Crest Ultrasonic 40 kHz tank. The solutions were degassed for five minutes.

Two presoiled unbaked coupons coated with the Acheson Colloids Co Aquadag M mold release agent (CAS#: 7782-42-5, 84122-50-6, 70131-67-8, 1333-86-4, 107-21-1, 9002-84-0) were suspended in each solution and cleaned for 5 minutes using ultrasonic energy. Parts were then rinsed with tap water at 120 F for 15 seconds and dried using compressed air at room temperature for 30 seconds. Cleaned parts were then visually inspected and compared to each other. In addition, the parts were also compared to the client supplied cleaned parts.

Results: Both diluted products did remove the unbaked graphite mold release agent. Both dilutions required more time for sufficient level of removal.

Cleaner	Observations
Coil Bright 10%	5 min Good removal, better than acid washed parts. Some soil
	10min Complete removal
Coil Bright 5%	5 min Some removal, not as good as acid washed parts
	10min Improved cleaning, still not at acid washed clean
	15min At acid wash level of clean

Summary:

Substrates:	Aluminum				
Contaminants:	Mold Releases, Graphite				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Watson Technical Associates	Coil Bright	10		☑	10 minutes
Watson Technical Associates	Coil Bright	5		☑	15 minutes

Conclusion: The 10% dilution of Coil Bright may provide enough cleaning with 5 minutes of ultrasonic energy. The 5% solution also provides enough cleaning after 15 minutes of ultrasonic energy.