

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2024

DateRun: 06/18/2024

Experimenters: Nasser Anise

ClientType: Lab

ProjectNumber: Project #8

Substrates: Stainless Steel

PartType: Coupon

Contaminants: Waxes

Cleaning Methods: Ultrasonics

Analytical Methods: Gravimetric

Purpose: To evaluate the effectiveness of Micro-90 (2% cleaner, 98% water) and BG-Clean 402 (10% cleaner, 90% water) in removing wax from stainless steel coupons as a preliminary test for Precision Fabricators

Experimental Procedure: Six stainless steel coupons were used for each of the two cleaners for a total of 12 coupons. The initial weight of each coupon was recorded before applying the wax. The bottom third of each coupon was soiled by adding Meguiar's Cleaner Wax using a swab. The dirty weights of all coupons were then recorded. The coupons were then put into heated ultrasonics at 120F in Micro-90 (2% dilution with water) and BG-Clean 402 (10% dilution with water) for 15 minutes. After the coupons were cleaned, they were left to air dry overnight. The next morning, the clean weights of all of the coupons were recorded.

| Cleaner | Coupon # | Initial wt of cont. | Final wt of cont. | %Cont Removed | Average % Removal |
|----------------|----------|---------------------|-------------------|---------------|-------------------|
| Micro-90 | 1 | 0.0387 | 0.0017 | 95.61 | 97 |
| | 2 | 0.0588 | 0.0011 | 98.13 | |
| | 3 | 0.0486 | 0.0007 | 98.56 | |
| | 4 | 0.044 | 0.0006 | 98.64 | |
| | 5 | 0.0507 | 0.0024 | 95.27 | |
| | 6 | 0.0399 | 0.0011 | 97.24 | |
| BG - Clean 402 | 7 | 0.0542 | 0.0017 | 96.86 | 96 |
| | 8 | 0.0356 | 0.0021 | 94.10 | |
| | 9 | 0.0381 | 0.0016 | 95.80 | |
| | 10 | 0.0562 | 0.0017 | 96.98 | |
| | 11 | 0.0607 | 0.0016 | 97.36 | |
| | 12 | 0.0529 | 0.0028 | 94.71 | |

| Summary: | | Substrates: Stainless Steel | | | | |
|------------------------------------|----------------|------------------------------------|-------------|-------------------------------------|---------------------------|--|
| | | Contaminants: Waxes | | | | |
| Company Name: | Product Name: | Conc.: | Efficiency: | Effective: | Observations: | |
| International Products Corporation | Micro 90 Conc. | 2% Cleaner 98% water | 97.00 | <input checked="" type="checkbox"/> | On Meguiar's Cleaning Wax | |
| Amiran BioChemicals | BG-Clean 402 | 10% cleaner 90% water | 96.00 | <input checked="" type="checkbox"/> | On meguiar's cleaning wax | |

Conclusion: Both cleaners were effective in removing the wax soil. Micro-90 removed 2 percent more wax than BG-Clean 402.