

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2021
DateRun: 12/14/2021
Experimenters: Zoe Lawson
ClientType: Lab
ProjectNumber: Project #7
Substrates: Ceramics, Plastic, Painted metal
PartType: Coupon
Contaminants: Hucker's Soil
Cleaning Methods: Manual Wipe
Analytical Methods: Gravimetric
Purpose: Control testing to monitor hucker's soil consistency.

Experimental Procedure: Nine pre-weighed coupons were contaminated with 0.5 grams of Hucker's soil (Evaporated Milk; 26.5%, Creamy Peanut Butter; 17%, Salted Butter; 17%, Stone Ground Wheat Flour; 17%, Linseed Oil; 2.25%, Saline Solution; 5.25%, India Ink; 6.8%, Lemon Juice; 8.2%). Coupons were aged for two hours at room temperature (68°F) before dirty weights were recorded. Coupons of the same substrate were placed into the Straight Line Washability (SLW) unit, three at a time, and treated twice with water. A Wypall was attached to the SLW sled and was also treated twice with water. Each test ran 20 cycles (~30 seconds of cleaning). Coupons were air-dried at room temperature (68°F) overnight before final weights were recorded.

| Results: | Cleaner | Substrate | Initial wt of cont. | Final wt of cont. | %Cont Removed | % AVG | % Overall |
|----------|---------|---------------|---------------------|-------------------|---------------|-------|-----------|
| | Water | Ceramic | 0.5015 | 0.0961 | 80.84 | 79.59 | 79.92 |
| | | | 0.4909 | 0.1136 | 76.86 | | |
| | | | 0.4557 | 0.0862 | 81.08 | | |
| | | Painted Steel | 0.5672 | 0.1379 | 75.69 | 78.87 | |
| | | | 0.4965 | 0.0902 | 81.83 | | |
| | | | 0.5168 | 0.1081 | 79.08 | | |
| | | Plastic | 0.5022 | 0.1124 | 77.62 | 81.3 | |
| | | | 0.4202 | 0.0679 | 83.84 | | |
| | | | 0.5171 | 0.0908 | 82.44 | | |

Summary:

Conclusion: The overall removal percentage for this control test was 79.92%.