

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2015
 DateRun: 09/17/2015
 Experimenters: Alicia Melvin
 ClientType: Cleaning Equipment Mfr
 ProjectNumber: Project #1
 Substrates: Stainless Steel
 PartType: Coupon
 Contaminants: Greases, Food
 Cleaning Methods: Manual Wipe
 Analytical Methods: Gravimetric
 Purpose: Abrasion Testing of Series 2

Experimental Procedure: Initial weights of stainless steel coupons were recorded and then coated with 0.5 grams of DCC-17 soil. The coupons air dried overnight and dirty weights were recorded the next day. A clean 5 gallon bucket was filled to the 4 gallon marker 3 times with water from the lotus pro. In a clean 1000ml glass beaker, ozonated water was collected to the 800ml marker. Three dirty coupons were placed on the abrasion machine at a time per abrasion trial. Using a spray nozzle, the ozone water was sprayed once on each dirty coupon and then once on a Wypal towel. The machine ran for 20 cycles (30 seconds of cleaning), and then the clean coupons were removed to air dry overnight on a tray. This process was repeated for the 30min, 60min, 120min, 240min, and 1440min mark for Series 2 with the same sample of ozone water per trial. Clean weights were recorded for percentage removal the next day.

DCC-17-33% vegetable shortening; 33% lard; 33% vegetable oil; 1% carbon lampblack.

Results: Trial 1

Cleaner	Coupon #	Initial wt	Final wt	% Removed
03 (0 Min)	17	0.5014	0.0247	95.07
03 (0 Min)	10	0.5042	0.0452	91.04
03 (0 Min)	4	0.5048	0.0377	92.53
03 (60 Min)	8	0.5084	0.0219	95.69
03 (60 Min)	7	0.5018	0.0351	93.01
03 (60 Min)	20	0.4970	0.0241	95.15
03 (120 Min)	9	0.5038	0.0230	95.43
03 (120 Min)	31	0.4482	0.0292	93.49
03 (120 Min)	21	0.4966	0.0174	96.50
03 (240 Min)	15	0.5083	0.0266	94.77
03 (240 Min)	6	0.9964	0.5168	48.13
03 (240 Min)	23	0.9416	0.0200	97.88
03 (1440 Min)	18	0.4941	0.0286	94.21
03 (1440 Min)	2	0.5035	0.0250	95.03
03 (1440 Min)	3	0.5037	0.0310	93.85

Trial 2

Cleaner	Coupon #	Initial wt	Final wt	% Removed
03 (0 Min)	17	0.4628	0.0474	89.76
03 (0 Min)	22	0.5071	0.0429	91.54

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03 (0 Min)	21	0.5021	0.0383	92.37
03 (60 Min)	7	0.5022	0.0365	92.73
03 (60 Min)	4	0.4956	0.0466	90.60
03 (60 Min)	11	0.4974	0.0493	90.09
03 (120 Min)	1	0.4958	0.0372	92.50
03 (120 Min)	6	0.5048	0.0347	93.13
03 (120 Min)	4	0.4980	0.0304	93.90
03 (240 Min)	13	0.4947	0.0338	93.17
03 (240 Min)	16	0.5037	0.0343	93.19
03 (240 Min)	7	0.4998	0.0292	94.16
03 (1440 Min)	2	0.4827	0.0327	93.23
03 (1440 Min)	3	0.5091	0.0303	94.05
03 (1440 Min)	5	0.5035	0.0278	94.48

Trial 3

Cleaner	Coupon #	Initial wt	Final wt	% Removed
03 (0 Min)	28	0.4902	0.0249	94.92
03 (0 Min)	26	0.5032	0.0321	93.62
03 (0 Min)	38	0.4989	0.0229	95.41
03 (60 Min)	19	0.5024	0.0282	94.39
03 (60 Min)	20	0.5039	0.0323	93.59
03 (60 Min)	28	0.5046	0.0358	92.91
03 (120 Min)	12	0.5066	0.0191	96.23
03 (120 Min)	41	0.5084	0.0101	98.01
03 (120 Min)	26	0.5007	0.0122	97.56
03 (240 Min)	1	0.4987	0.0293	94.12
03 (240 Min)	27	0.5109	0.0221	95.67
03 (240 Min)	11	0.5028	0.0251	95.01
03 (1440 Min)	22	0.5061	0.0232	95.42
03 (1440 Min)	24	0.4952	0.0183	96.30
03 (1440 Min)	8	0.4982	0.0192	96.15

Summary:

Substrates:	Stainless Steel				
Contaminants:	Greases, Food				
Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Lotus Pro Tersano	Ozonated water Stabilized	100	93.11	<input checked="" type="checkbox"/>	Stablizer 2

Conclusion:

Cleaning remained fairly constant over the 24 hour period.