CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2022

DateRun: 06/29/2022

Experimenters: Zoe Lawson

ClientType: Cleaning Equipment Mfr

ProjectNumber: Project #1

Substrates: Stainless Steel

PartType: Coupon

Contaminants: Food

Cleaning Methods: Manual Wipe

Analytical Methods: Visual

Purpose: To test the efficiency of the Stainless Steel Cloths on stainless steel substrates.

Experimental Procedure: Stainless steel tiles were soiled with a mixture of melted, oily soils containing a small amount of carbon black. The tiles were dried for 24 hours at room temperature. The soaked product was used to scrub a portion of the soiled substrate using a straight-line washability apparatus. Three coupons were cleaned by each cleaning product being evaluated. Cleaning performance was observed visually and gravimetric analysis was conducted on all test panels by taking initial, soiled, and final clean weights. The amount of soil added was then compared to the amount removed (or remaining) to provide a percent removal.

Soil Preparation

A mixture of three cooking oils/greases was made. A melt blend of 33% vegetable shortening, 33% lard, 33% vegetable oil and 1% carbon lampblack was made up fresh for the testing. Care was taken in the application of the soil onto the coupons so that light and heavy areas were avoided. The soiled tiles were then allowed to dry for 24 hours at room temperature.

Cleaning Test

A soiled tile was placed in the tray of the abrasion tester such that the direction of the soiling is perpendicular to the direction of the sponge. The supplied cleaning product was wet and wrung out, and the desired side facing down was attached to the cleaning instrument. For test number one, only the strip cloth side was used to clean the tiles. For test number two, both the strip cloth and polishing cloth (used dry) were used to clean the tiles. The cleaning was performed using Gardner Straightline washability unit and conducted for the prescribed 20 strokes.

Results: Table 1: Cleaning Test Results

Product	Substrate	Initial wt of cont.	Final wt of cont.	%Cont Removed	Average	Overall Average
Stainless Steel Cloths (10617) - Test #1	Stainless Steel	0.1928	0.0076	96.06	96.26	97.72
		0.1598	0.0064	95.99		
		0.1532	0.0050	96.74		
Stainless Steel Cloths (10617) - Test #2		0.1617	0.0023	98.58	99.17	
		0.1567	0.0006	99.62		
		0.1631	0.0011	99.33		

Table 2: Averages with Standard Deviation

Product	Substrate	Coupon 1	Coupon 2	Coupon 3	Average	Std Dev
Stainless Steel Cloths (10617) - Test #1	Stainless Steel	96.06	95.99	96.74	96.26	0.41
Stainless Steel Cloths (10617) - Test #2		98.58	99.62	99.33	99.17	0.54

Summary:

Conclusion:

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Both cleaning tests showed that the stainless steel cleaning cloths were overall very effective at removing food contaminant from stainless steel. Test number 2 used both cloths and was slightly more effective than test number one with an overall average percent removal of 99.17%.