CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2022

DateRun: 06/24/2022

Experimenters: Tatyanna Moreland Junior, Alexander Symko

ClientType: Cleaning Equipment Mfr

ProjectNumber: Project #1

Substrates: Ceramics, Vinyl Composite Tiles, Granite

PartType: Coupon

Contaminants: Food

Cleaning Methods: Manual Wipe

Analytical Methods: Gravimetric, Visual

Purpose: To test the efficiency of the Non-scratch Scrubbing Pad on various substrates.

Experimental Procedure: Laminate, granite, and ceramic 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. Allow the soiled tiles 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. 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
Non-scratch Scrubbing Pad (10643)	Ceramic	0.0813	0.0069	91.51	93.31	90.06
		0.1553	0.0066	95.75		
		0.1828	0.0134	92.67		
	Laminate	0.2097	0.0332	84.17	84.59	
		0.2269	0.0334	85.28		
		0.2234	0.0350	84.33		
	Granite	0.2486	0.0207	91.67	92.26	
		0.1853	0.0100	94.60		
		0.2254	0.0214	90.51		

Table 2: Averages with Standard Deviation

Cleaner	Substrate	Coupon 1	Coupon 2	Coupon 3	Average	Std Dev
Non-scratch Scrubbing Pad (10643)	Ceramic	91.51	95.75	92.67	93.31	2.19
	Laminate	84.17	85.28	84.33	84.59	0.60
	Granite	91.67	94.60	90.51	92.26	2.11

Summary:

Conclusion: With an overall average percent removal of 90.06%, the Non-scratch Scrubbing Pad was found to be effective at removing the contaminant from ceramic, laminate, and granite tiles.