CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2010

DateRun: 01/10/2010

Experimenters: Jason Marshall, Junhee Cho

ClientType: Cleaner Manufacturer

ProjectNumber: Project #1

Substrates: Vinyl Composite Tiles

PartType: Coupon

Contaminants: Coatings, Waxes

Cleaning Methods: Mechanical Agitation

Analytical Methods: Visual

Purpose: To determine the relative resistance of floor polishes to detergent scrubbing using the Gardner Straight Line Washability Meter

Experimental Procedure: Vinyl composite tiles were coated using the supplied product and a conventional floor coating. A known amount of coating was first applied to the surface and then smoothed using a 10-mil blade to ensure consistent thickness of the coating across the VCT. Let dry for 24 h at 22.8 6 2°C (73.4 6 3.6°F) and 50 6 5 % relative humidity.

The conditioned coated test panel was placed on the plate of the washability apparatus in such a manner that the oscillating brush (sponge) will travel at right angles to the longer side of the dried polish film near the top of polish film. A uniform surface for the oscillating brush (sponge) to travel upon was created by placing dummy panels on either side of the test panel.

A hog bristle brush was inserted into the receptacle, and while in an inverted position 10 mL of the Green Seal detergent solution (Triple S Compass Neutral Floor Cleaner) was sprayed onto the brush. Immediately the brush was turned over so that the bristles made contact with the coated panel. The motor was started. If for any reason the 10 mL had insufficient volume of detergent solution for good wetting, more solution was added dropwise during the test period. After 100 oscillations, the machine was stopped, the panel removed and rinsed with water being careful not to wet the polish film below where it was scrubbed. The tile was blotted dry. Below the first track, the scrubbing operation was repeated using a fresh 10 mL of detergent solution for 200 cycles, rinse, and blot dry.

Rating System:
Degree of detergent resistance deterioration in film appearance
Excellent none
Very good <10 % after 200 cycles
Good >10 % after 200 cycles but <10 % after 100 cycles
Fair >25 % after 200 cycles with< 25 % after 100 cycles
Poor >50 % after 100 cycles

Results: Observations were made through visual inspection of coating. An estimated coating removal was made by a panel of two and are listed as ranges in the table below.

		Removal at	Removal at		
Coating	VCT	100 Cycles	200 Cycles	Rating	Ave Rating
Johnson wax	1	none	<10 %	Very good	Very good
	2	none	<10 %	Very good	
	3	none	none	Excellent	
MD Stetson	1	60-65	80-90	Poor	Fair
	2	30-40	65-75	Fair	
	3	45-50	80-90	Fair	

Summary:

Substrates:	Vinyl Composite Tiles				
Contaminants:	Coatings, Waxes				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Triple S	Compass	0.78	0.00	☑	Did not effect the Johnson wax but removed over 80% of the MD Stetson wax.

Conclusion: The Johnson wax had excellent detergent resistance whereas the MD Stetson product had fair resistance.

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