

# CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2010

DateRun: 11/05/2010

Experimenters: Jason Marshall, Junhee Cho, Timothy Weil

ClientType: Cleaner Manufacturer

ProjectNumber: Project #1

Substrates: Vinyl Composite Tiles

PartType: Coupon

Contaminants: Coatings

Cleaning Methods: Mechanical Agitation

Analytical Methods: Visual

Purpose: To evaluate the removability of floor coating by supplied floor stripper on coated Vinyl Composition tiles.

Experimental Procedure: Six vinyl composite tiles coated with client provided Enviro-Safe Green Floor Finish according to the ASTM 1792 Standard Test Method for Long-term Removability Properties of Emulsion Floor Polishes. The tiles were then heated at 37.8C (100F) for 48hours in order to simulate service aging.

The supplied floor stripper, Green Floor Stripper from EnviroSafety and the comparison floor stripper Floor Finish Remover from Spartan were both diluted to 1:3 (25%) concentrations using water. The cleaning pad was allowed to soak for one minute and then each solution-soaked pad was cycled one time on a coated floor tile and allowed to soak for 1 minute. After a minute the pad was cycled for 50 cycles on the tile making sure to keep floor stripping solution added as needed to keep the tile coated with stripper. The coupons were scrubbed clean using a section of a floor stripping plastic pad using a Gardner Straight Line washability unit and the unit was run for 50 oscillations. At the end of the scrubbing, the tile was blotted dry with a paper towel and then observed to determine the amount of finish remaining. If the tile was not completely stripped, additional stripper was applied, and the unit was run for another 50 cycles. The total numbers of oscillations to remove the coatings were recorded as a measure of removability.

Removal Ease Number of Oscillations Required for Complete Removal  
Excellent <50  
Good >50 but <100  
Fair >100 but <200  
Poor >200

Results: Both floor strippers worked well under the test conditions. (1:3 concentration)

Product Name	Observations	GS-40/ASTM Ranking
Green Floor Finish	50 cycles appeared to be enough	
	Two coupons were run for 50 cycles	<50
	to remove all finish	
	One coupon was run for an additional	>50 but <100 (70~80 Cycles)
	50 cycles to remove finish	
Floor Finish Remover	Needed more than the 50 cycles but was complete after 100 cycles	100
	One coupon needed 50 cycles to remove	<50
	finish	
	Two coupons were run for an additional >50 but <100	
	second set of 50 cycles	

Summary:

**Substrates:** Vinyl Composite Tiles

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<b>Contaminants:</b>	Coatings				
<b>Company Name:</b>	<b>Product Name:</b>	<b>Conc.:</b>	<b>Efficiency:</b>	<b>Effective:</b>	<b>Observations:</b>
Spartan Chemical Company	Green Solutions Floor Stripper	25		<input checked="" type="checkbox"/>	
Daley International	Floor Finish Remover	25		<input checked="" type="checkbox"/>	

**Conclusion:**

Enviro Safe Green Floor Finish stripper passed the standard with an excellent level of removal. Its performance was better than that of the comparative green floor finish stripper with only one coupon needing more than 50 cycles to remove the floor finish. The other floor finish remover required more than fifty for two of the coupons.