

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2010

DateRun: 11/10/2010

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 polish by supplied floor stripper from commonly used concentrations on coated Vinyl Composition Tiles.

Experimental Procedure: Six vinyl composite tiles coated with Johnsonwax Showplace 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 Inline washability unit. 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	ASTM Ranking
Green Floor Finish	All coupons required 200 cycles	Fair
Floor Finish Remover	All coupons required 200 cycles	Good

Summary:

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

Conclusion: Enviro Safe Green Floor Finish stripper and Spartan Floor Finish Remover both required 200 cycles and did not achieve 100% removal. Spartan Floor Finish Remover showed a higher percentage of removal than Enviro Safe Green Floor Finish stripper which achieved approximately 80 % removal.