CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2015
DateRun:	05/12/2015
Experimenters:	Loc Nguyen, George Liang, Russell Curtis
ClientType:	Cleaner Manufacturer
ProjectNumber:	Project #2
Substrates:	Textile
PartType:	Coupon
Contaminants:	Dirt
Cleaning Methods:	Manual Wipe
Analytical Methods:	Gloss-Color Meter
Purpose:	To evaluate supplied product for carpet soil removal

Experimental Procedure:

The purpose of this evaluation was to assess effectiveness of removing synthetic soil from carpets. The procedure followed is a modified version of the Institute of Inspection Cleaning and Restoration Certification (IICRC) Standard and Reference Guide S100. Most of the layout of the testing was modeled after Appendix D, IICRC Carpet Cleaning Methods Testing Protocol.

Three almond white tufted cut pile test carpet measuring 4.5 inches by 17.5 inches were stained with 2 grams of synthetic AATC soil for each cleaner. One almond carpet was divided into three equal sections for evaluation. The staining agent was applied to the surface of the carpet and was placed into a 1 gallon can with 174 grams of rubber tubes inside. The can was cranked at a rate of 42 rpm for 5 minutes in one direction. Thereafter it was done in the other direction for another 5 minutes.

After applying the soil agent onto the carpet, the carpet was left to soak with the cleaning agent for 30 seconds with 15 sprays in total for each carpet with the respected cleaning agent. The carpet was manually cleaned with the GSLWU machine. It was set to run for 90 cycles or about 2.5 minutes. After every 30 cycles, 6 sprays of the cleaning agent were applied onto each section of the carpet.

Following an overnight drying, the test carpets were evaluated with color readings using the byk gloss meter and a visual rating.
A minimum of three lab personnel were used to evaluate the stain removal efficacy which were then averaged together for the final rating. The evaluations were based on the following scale:
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Clean Rating Key
1 No Stain
2 Slight Stain
3 Noticeable Stain
4 Considerable Stain
5 Severe Stain

Chemistries Evaluated: DG-7 (12.5%), DG-7 (6.25%), Resolve

Results:

Cleaner:	Initial L	Dirty L	Final L	% Change	Average Change
DG-7 (12.5%)	65.68	51.57	56.97	13.26	
	68.08	45.97	54.17	20.43	
	69.19	50	54.15	21.74	18.48
DG-7 (6.25%)	67.45	48.01	51.57	23.54	
	69.11	51.48	51.73	25.15	
	67.67	53.96	53.1	21.53	23.41
Resolve	68.3	54.94	62.48	8.52	
	69.11	56.37	62.21	9.98	
	68.42	50.39	58.71	14.19	10.9

Visual Results

Cleaner:	Clean Visual			Average	Overall Average
DG-7 (12.5%)	4	2.5	3	3.2	
	5	5	5	5	
	4	4.5	4	4.2	4.1
	5	5	5	5	

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DG-7 (6.25%)					
	5	5	5	5	
	4	4.5	4	4.2	4.7
Resolve	2	2	2	2	
	3	2.5	2	2.5	
	2	2	2.5	2.2	2.2

Summary:

Substrates:	Textile
Contaminants:	Dirt

Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
ProNatural Brands LLC	DG 7	12.5	0.00	☐	Partially effective at removing synthetic soil
ProNatural Brands LLC	DG 7	6.25	0.00	☐	Partially effective at removing synthetic soil
Reckitt Benckiser	Resolve High Traffic Foam Carpet Cleaner	100	0.00	☑	Effective at removing synthetic soil

Conclusion:

The light value measures the carpets contrast between light and darkness. The percent average in change for light was done in comparison between the initial and its clean value to note if there are any significant changes in light contrast. Resolve had the least difference in contrast from its initial readings with a respective reading of 10.90%, meaning the carpet was closer to initial unsoiled level. The percent in Light value change is relatively close between DG-7 at a dilution of 12.5% and 6.25%. The difference between the two dilutions is only 4.93% in difference of value.

A visual rating of less than 3 is considered to be an effective cleaner. Resolve were the most visually effective at removing synthetic soil. DG-7 at 12.5% and 6.25% were not visually effective at removing the synthetic soil. DG-7 at 12.5% dilution has a higher visual rating than DG-7 at 6.25%. However, that difference in visual rating was only 0.6%. Overall, the best cleaning agent would be as follows: Resolve, DG-7 at 12.5% and DG-7 at 6.25%.