CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2016
DateRun:	12/15/2016
Experimenters:	George Liang, Nicholas Landberg
ClientType:	Cleaning Equipment Mfr
ProjectNumber:	Project #1
Substrates:	Textile
PartType:	Coupon
Contaminants:	Dirt
Cleaning Methods:	Manual Wipe
Analytical Methods:	Visual, Gloss-Color Meter
Purpose:	To evaluate carpet resoiling characteristics of supplied cleaning product for GS 37 certification
Experimental Procedure:	Carpet pieces that were previously soiled and cleaned with the supplied product and Liquid Formula 90 (industry standard product) were resoiled by placing the carpet sections into the 1-gallon can, making sure the carpet lined the inner wall of the can. Nalgene® tubing cut into 1/8" pieces were poured into the bucket and 2 grams of the AATCC soil was distributed along the width of the can. The can was lidded and placed into a harness attached to a crank shaft. The crank was turned at an average rate of 42 rpm by hand for 5 minutes in one direction, followed by 5 minutes of rotation in the opposite direction. At the end of the 10-minute soiling regime, the carpet was placed onto a carpet template and vacuumed with a Eureka SuperBroom (Brush-Up, Motor-Driven/Brush-Roll) vacuum for 5 strokes in the forward direction followed by the same number of strokes in the backward direction. The carpet pieces were evaluated again using a BYK specro-guide gloss color meter was used to measure L-values from the surface of the carpet. GREEN SEAL ENVIRONMENTAL STANDARD FOR INDUSTRIAL AND INSTITUTIONAL CLEANERS (GS-37) PRODUCT-SPECIFIC PERFORMANCE REQUIREMENTS: 3.1.3 Carpet Cleaners. The product shall have a pH between 3-10 and be tested following the requirements with an appropriate method as outlined in 3.2, Alternative Performance Requirements, for cleaning efficacy and resoiling resistance. Alternatively, products that have WoolSafe certification or a Carpet and Rug Institute Cleaning Solutions Seal of Approval, or equivalent, will be accepted. 3.2 Alternative Performance Requirements. Alternatively, using another objective, scientifically-validated method conducted under controlled and reproducible laboratory conditions, the product performs as well as or better than a conventional, nationally-recognized product in its category and at equivalent product-specific use directions. Test methodology and results must be documented in sufficient detail for this determination to be made.
Results:	The industry standard product resulted in slightly higher post vacuuming color meter readings. Visually, there was little difference between the carpet sections after resoiling and vacuuming. The table lists the readings for each cleaner.

Resoiling Resistance

Cleaner	Carpet	Initial	Post Clean	Resoil	Vacuumed	Difference	Ave Diff
Free Catholyte	A	64.59	57.6	49.19	50.55	1.36	1.27
	B	64.31	54.97	50.14	52.31	2.17	
	C	63.14	55.42	53.36	53.65	0.29	
General Purpose	D	64.93	51.26	52.08	52.9	0.82	0.96
	E	64.13	50.57	47.46	48.94	1.48	
	F	63.01	51.29	52.07	52.66	0.59	
Resolve	G	63.96	53.8	53.41	55.14	1.73	1.49
	H	63.83	57.91	52.12	54.21	2.09	
	I	64.8	54.7	52.51	53.15	0.64	

Summary:

Substrates:	Textile				
Contaminants:	Dirt				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Annihilare	Free (Catholyte)	100	0.00	☑	
Annihilare	Annihilyte General Purpose Cleaner	100	0.00	☑	

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	Reckitt Benckiser	Resolve Spot and Stain Remover-Carpet Cleaner	100	0.00	☑	

Conclusion: The Free Catholyte and General Purpose products had comparable resoiling results to the Resolve formulation.