CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2005

DateRun: 02/23/2005

Experimenters: Jason Marshall

ClientType: Cleaner Manufacturer

ProjectNumber: Project #1

Substrates: Textile

PartType: Coupon

Contaminants: Dirt

Cleaning Methods:

Analytical Methods: Light Meter

Purpose: To evaluate and compare client product against an industry standard for resoiling

Experimental Procedure: Carpet pieces that were previously soiled and cleaned with DFC 105 (client 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 SPER Scientific Light Meter 840021 used to measure Foot Candles from the surface of the carpet. Visual comparison was also preformed to determine which product looked cleaner.

Results: The industry standard product resulted in higher post vacuuming light meter readings. Visually, there was no difference between the two carpet sections after resoiling and vacuuming. The table lists the average readings for each cleaner.

DFC 105				
Post Clean	Resoil	Vacuumed	Difference	Overall Ave Difference
4.25	2.53	2.58	0.05	
4.39	2.15	2.39	0.24	
4.64	2.43	2.90	0.47	0.18
Liquid 90				
Post Clean	Resoil	Vacuumed	Difference	Overall Ave Difference
4.40	2.13	2.59	0.46	
4.31	2.39	2.66	0.28	
4.90	2.87	3.26	0.39	0.28

Summary:

Substrates:	Textile				
Contaminants:	Dirt				
Company Name:	**Product Name:**	**Conc.:**	**Efficiency:**	**Effective:**	**Observations:**
Cogent Environmental Solutions	DFC 105	0.78	0.00	☐	
Chemspec	Liquid Formula 90	0.156	0.00	☑	

Conclusion: The industry standard had higher light meter readings after resoiling and vacuuming indicating better soil rejection than the client product. Visual analysis by two lab personnel resulted in no difference in the two cleanliness levels.