CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2011
DateRun:	12/11/2011
Experimenters:	Jason Marshall, Timothy Weil, Johnny Le, Mahima Tank
ClientType:	Cleaning Equipment Mfr
ProjectNumber:	Project #1
Substrates:	Textile
PartType:	Coupon
Contaminants:	Dirt
Cleaning Methods:	Mechanical Agitation
Analytical Methods:	Gravimetric, Visual, Timing
Purpose:	To evaluate the pet hair removal process of lint roller tool
Experimental Procedure:	Uniform application process: Take 0.0150 (+/- 0.0015) g of cat hair Pull hair clump apart into smaller fibrous bundles Place the bundles evenly across the 83 sq in surface, focusing hair application within center 3.5 inch path A plastic bag is then passed over the surface to better distribute the hair and impart static charge to the surface and hair Hair removal process: Weigh uncovered lint roller tape Pass the roller across the surface to complete one cycle (up and back) Weigh the roller to determine hair collection Due to some surface materials, weights may exceed total hair weights as the roller may remove some of the fabric during the process Repeat Uniform application process and the Hair removal process for the initial tape piece until no hair is removed by the soiled lint roller tape Record total number of hair removal passes completed Agitator-hair removal process: Use the uniform soiled process Weigh uncovered lint roller tape Pass the agitator across the surface for a half cycle Pass the roller across the surface to complete cycle Weigh the roller to determine hair collection Due to some surface materials, weights may exceed total hair weights as the roller may remove some of the fabric during the process Repeat Uniform application process and the Hair removal process for the initial tape piece until no hair is removed by the soiled lint roller tape Record total number of hair removal passes completed Agitator-hair removal process 2nd option: Use the uniform soiled process Weigh uncovered lint roller tape Pass the agitator across the surface for a half cycle using four to five short movements of the agitator Pass the roller across the surface to complete cycle Weigh the roller to determine hair collection Due to some surface materials, weights may exceed total hair weights as the roller may remove some of the fabric during the process Repeat Uniform application process and the Hair removal process for the initial tape piece until no hair is removed by the soiled lint roller tape Record total number of hair removal passes completed
Results:	Fleece Surface Evaluation of the Evercare classic roller showed that an individual section of the lint tape was completely used up within 5 cleaning cycles. The Ezpeel unit approached 6 cycles and the comparative product was around 4. When using the multiple short strokes across the surface, the agitators (both the nubs and wave) increased the number of cleaning cycles to more than 10 cycles Conclusions: Both the supplied agitator handles were found to increase the life of a single piece of the tape when compared to using the tape alone. Nub: >2X (5 vs 10+) Wave: >2X (5 vs 10+) Chair Surface Evaluation of the Evercare classic roller showed that an individual section of the tape was significantly used up within 2-3 cleaning cycles with a lot of dirt left behind on the fabric after the first cycle. The Ezpeel unit was effective through 3 cycles. The comparative product had the most passes at 4. When using the multiple short strokes across the surface, the nub and wave agitator increased the number of cleaning

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cycles to 6 for the Ezpeel tape. Not a lot of extra soil was collected from the agitator pass across the chair fabric.

Summary:

Conclusion: Both the supplied agitator handles were found to increase the life of a single piece of the tape when compared to using the tape alone.
Nub: 2X (3 vs. 6)
Wave: 2X (3 vs. 6)