CLEANING LABORATORY EVALUATION SUMMARY

SCL #:	2006
DateRun:	03/09/2006
Experimenters:	Jason Marshall
ClientType:	Cleaner Manufacturer
ProjectNumber:	Project #1
Substrates:	Ceramics, Fiberglass, Chrome
PartType:	Coupon
Contaminants:	Films, Soaps
Cleaning Methods:	Manual Wipe
Analytical Methods:	Gravimetric
Purpose:	To evaluate supplied product for bathroom cleaning applications.
Experimental Procedure:	The two supplied cleaning product was diluted to vendor recommended concentrations for bathroom cleaning using DI water (3.125 and 1.56%). Water was used as well. Nine preweighed fiberglass, ceramic and chrome coupons were coated with SSL Soil 1 (Bathroom soap scum: Vaseline Dry Skin Lotion 21.4%, Dial Clean Rinsing Body Wash 14.3%, Market Basket Shampoo & Conditioner (Pert)28.6%, Soft Soap Natural Liquid hand soap 21.4%, Coast Deodorant bar soap 7.2% and Water 7.1%) using a hand held swab and allowed to dry for 24 hours at room temperature. The contaminated coupons were weighed again to determine the amount of soil added. Three coupons were placed into a Gardner Straight Line Washability unit. A Professional Painter's Rag was attached to the cleaning sled and soaked with 5-7 sprays of cleaning solutions. Each coupon was sprayed 7-10 times with the same cleaning solution. The cleaning unit was run for 20 cycles (~33 seconds). At the end of the cleaning, coupons were wiped once with a dry paper towel. Final weights were recorded, efficiencies were calculated and recorded.
Results:	The table below lists the amount of soil added, remaining and efficiency for each substrate and each coupon.

Cleaner	Initial wt	Final wt	% Removed
Perma 180 Ceramic	0.1207	0.0198	83.60
	0.1942	0.0365	81.20
	0.1590	0.0335	78.93
Perma 1040 Ceramic	0.2435	0.0878	63.94
	0.1970	0.0642	67.41
	0.1976	0.0589	70.19
Water Ceramic	0.2561	0.1491	41.78
	0.4360	0.2000	54.13
	0.2085	0.0721	65.42
Perma 180 Fiberglass	0.3395	0.0586	82.74
	0.4277	0.0684	84.01
	0.3446	0.0687	80.06
Perma 1040 Fiberglass	0.3391	0.0704	79.24
	0.4126	0.0867	78.99
	0.3355	0.0565	83.16
Water Fiberglass	0.4324	0.1620	62.53
	0.3794	0.0890	76.54
	0.3828	0.1545	59.64
Perma 180 Chrome	0.1441	0.0170	88.20
	0.1561	0.0142	90.90
	0.2653	0.0236	91.10
Perma 1040 Chrome	0.1651	0.0361	78.13
	0.1709	0.0210	87.71

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	0.3022	0.0379	87.46
Water Chrome	0.2664	0.0548	79.43
	0.2321	0.0607	73.85
	0.1780	0.0382	78.54

Summary:

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Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Perma Inc	Geo Clean 180	3.125	84.53	☑	
Perma Inc	Easy Mix Foaming Restroom Cleaner #1040	1.56	77.36	☐	
Water	Water	100	65.76	☐	

Conclusion: Only one product, Perma 180, removed an average of 85% of the bathroom soil at the specified concentrations.