

CLEANING LABORATORY EVALUATION SUMMARY

SCL #: 2006
DateRun: 03/10/2006
Experimenters: Jason Marshall
ClientType: Cleaner Manufacturer
ProjectNumber: Project #1
Substrates: Glass/Quartz, Chrome
PartType: Coupon
Contaminants: Soaps
Cleaning Methods: Manual Wipe
Analytical Methods: Gravimetric

Purpose: To evaluate supplied products for glass cleaning application.

Experimental Procedure: One of the supplied cleaning product was diluted to vendor recommended concentration for glass cleaning using DI water (0.39%). In addition, water was also used. Six preweighed chrome and six glass coupons were coated with SSL Soil 2 (Glass soap scum: Colgate Regular shaving cream 5.3%, Arid Extra Extra Spray Deodorant 3.5%, Suave Naturals Flexible Hold hair spray 3.7%, Aleeda Texturizing hair gel 25.6% Colgate Total toothpaste 10.4%, Water 51.5%) by pump spraying the mix. The soil was 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 5 cycles (~9 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 list the amount of soil added, the amount reaming and the efficiency for each substrate. Additional results for glass cleaning using water was also included for comparative purposes.

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:

Substrates:	Glass/Quartz, Chrome				
Contaminants:	Soaps				
Company Name:	Product Name:	Conc.:	Efficiency:	Effective:	Observations:
Perma Inc	Geo Clean 180	0.39	82.76	<input type="checkbox"/>	
Water	Water	100	77.07	<input type="checkbox"/>	

Conclusion:

The supplied product at the suggested concentration only removed 83% of the soil. This value is just under the cut-off for acceptable cleaning efficiency (85%).