

Cleaner Compatibility Testing

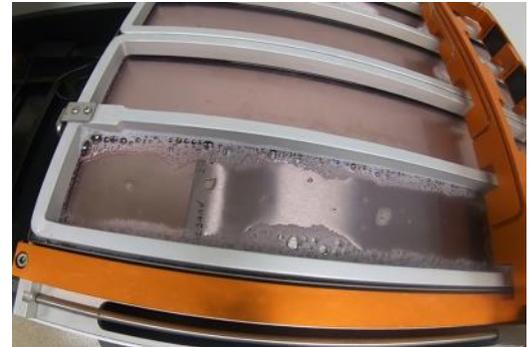
In accordance with **ASTM D4828, ASTM D523, and ASTM D6132**

BACKGROUND:

Care and maintenance is critical to the life of Hawk's coatings. Testing was conducted to identify commercial and retail cleaners suitable for long term cleaning of Hawk's coatings.

An Elcometer 1720 Abrasion Tester was used to test for washability, with 365 rubs equal to one year, and 2000 rubs equivalent to more than five years of service.

An Elcometer ETB-0833 was used to measure gloss levels and an Elcometer 456 was used to measure dry film thickness.



RESULTS:

The DFT (dry film thickness) before and after 2000 rubs is a measure of the coating's durability. Gloss before and after 2000 rubs is a measure of the coating's appearance. With the exception of Comet, the coatings showed excellent retention of physical properties and appearance when using the tested cleaners. Based on this testing, Hawk recommends the use of only non-abrasive, bleach-free cleaners.

Glastech™ Lo 9000 Series	Formula 409®	Lysol Bathroom Cleaner®	Scrubbing Bubbles®	Mr.Clean®	Comet®	Ecolab® Pro 63
DFT Before	1.5	1.5	1.5	1.5	1.5	1.5
DFT After 2000 Rubs	1.5	1.5	1.5	1.5	1.5	1.5
Gloss @ 60° Before	86	86	86	86	86	86
Gloss @ 60° After 2000 Rubs	88	86	88	86	53	86

Isofree Plus™ Lo Series	Formula 409	Lysol Bathroom Cleaner	Scrubbing Bubbles	Mr.Clean	Comet	Ecolab Pro 63
DFT Before	1.3	1.3	1.3	1.3	1.3	1.3
DFT After 2000 Rubs	1.3	1.3	1.3	1.3	0.7	1.1
Gloss @ 60° Before	86	86	86	86	86	86
Gloss @ 60° After 2000 Rubs	85	86	86	86	20	86

GlasTech Lo 8000 Series and StoneTuff™ Polyaspartic	Formula 409	Lysol Bathroom Cleaner	Scrubbing Bubbles	Mr.Clean	Comet	Ecolab Pro 63
DFT Before	2.5	2.5	2.5	2.5	2.5	2.5
DFT After 2000 Rubs	2.5	2.5	2.5	2.5	2.5	2.5
Gloss @ 60° Before	99	99	99	99	99	99
Gloss @ 60° After 2000 Rubs	100	100	99	99	25	100

GlasTech Lo Stonegard™ Series	Formula 409	Lysol Bathroom Cleaner	Scrubbing Bubbles	Mr.Clean	Comet	Ecolab Pro 63
DFT Before	1.3	1.3	1.3	1.3	1.3	1.3
DFT After 2000 Rubs	1.3	1.3	1.3	1.3	1.3	1.3
Gloss @ 60° Before	20	20	20	20	20	20
Gloss @ 60° After 2000 Rubs	20	20	20	20	25	20

StoneTuff Epoxy	Formula 409	Lysol Bathroom Cleaner	Scrubbing Bubbles	Mr.Clean	Comet	Ecolab Pro 63
DFT Before	3	3	3	3	3	3
DFT After 2000 Rubs	3	3	3	3	2.5	3
Gloss @ 60° Before	99	99	99	99	99	98
Gloss @ 60° After 2000 Rubs	99	95	99	99	82	99

Note: this data was generated in Hawk's laboratory conditions and does not take into account any other environmental or user behavior considerations. This study does not represent or imply any warranty or guarantee of performance.

