COMMERCIAL FLOOR CARE

VCT Coat Count Failure: Three Facilities, Three Outcomes

Illustrative case studies showing the operational and compliance consequences of under-coating, overbuild, and correctly managed VCT finish programs.

$5M	70+	200+	100%
Liability Insurance	Cleaning Professionals	Facilities per Week	Green Certified

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SECTION 01

Case Study A: The Under-Coated Medical Clinic

The following is an illustrative scenario based on the reference data in this campaign's dataset. It represents a realistic sequence of events for a facility that maintains a VCT floor with too few coats.

Scenario

A medical clinic in a North Bay professional building contracts a residential cleaning service to handle janitorial duties, including floor maintenance. The contracted crew applies 2 coats of standard acrylic no-metal finish after an initial strip, then maintains the floor with a mop-and-bucket mopping program using a quaternary ammonium disinfectant diluted at 1:32.

What the Data Shows

Variable	This Clinic	Recommended
Coat count	2 coats	5–6 coats (healthcare)
Total mil thickness	2.2 mils	5.5–7.2 mils
Burnish response	Poor — 30 GU max	Good — 74+ GU
Wet COF (entry zone)	0.50 borderline	0.60 minimum (OBC wet zone)
Mopping chemistry	Quat disinfectant	Neutral pH cleaner (pH 7.0–8.5)
Quat effect on finish	Strips ~0.1 mil/month	Neutral cleaner: no stripping effect

The Failure Sequence

1

Month 1

Initial 2-coat program applied. Floor looks acceptable. Clinic is satisfied.

2

Month 2

Quat disinfectant mopping has stripped 0.2 mils. Effective coat count now 1.8. Gloss begins to dull in the entrance corridor.

3

Month 3

Entry zone shows wear-through pattern. Black heel marks visible near reception. Spot-mop with the quat solution, which further degrades the finish.

4

Month 4

Wet COF in entry zone tested after a patient slip incident: 0.44 static wet. Below Ontario Building Code threshold of 0.50 for clinical environment.

5

Month 5

Full strip and 5-coat recoat with metal-free finish; anti-slip treatment applied in reception, washrooms, and patient corridor. Neutral cleaner adopted for all mopping. Quat disinfectant

6

Outcome

The clinic required an emergency strip cycle 4 months earlier than would have been needed with a correct initial coat count and mopping program. No injury was recorded, but the COF test

Key Lesson: Mopping Chemistry Is a Coat-Count Variable

Every application of alkaline cleaner or quat disinfectant slightly degrades the finish. A 2-coat program maintained with the wrong mopping chemistry can reach 0-effective-coat condition in 3–4 months. Coat count and cleaning chemistry must be designed together.

SECTION 02

Case Study B: The Overbuilt Retail Store

This illustrative scenario describes a retail environment that followed a recoating schedule without a documented strip cycle for six years.

Scenario

A retail store in Sudbury has 6,000 sq ft of VCT in its main shopping area. The store contracts a commercial cleaner to strip and refinish annually and apply 2 maintenance coats every 4 months. The annual strip cycle is deferred year over year — 'the floor looks okay, we'll skip it this year.' After 6 years of 2 maintenance coats every 4 months, the coat count reaches approximately 14 coats.

What the Data Shows

Variable	Year 1	Year 6
Coat count	5 coats	~14 coats
Total mil thickness	6.0 mils	~16.8 mils
Pre-burnish gloss	48 GU	38 GU
Post-burnish gloss	82 GU	55 GU
Burnish response	Good	Poor
Strip time / 1,000 sqft	20 minutes	85+ minutes
Strip passes required	1	3–4
Strip cost multiplier	1×	3.5–4×

The Overbuild Failure Sequence

1. **Year 3**
   Gloss starts degrading post-burnish. Crew increases burnish RPM to compensate. Burnish marks (slight machine-direction streaks) appear in the aisle with heaviest cart traffic.

2. **Year 4**
   Yellow tint visible near the cash register queue — high-traffic spot with 14+ years of finish accumulation. Burnishing cannot restore original appearance.

3. **Year 5**
   Delamination event: a loaded stock cart peels a 3-foot strip of upper finish coats at the stockroom door threshold. The rough, tacky underlayer is exposed. Emergency repair patch

4. **Year 6**
   Strip-and-refinish finally scheduled. Three-pass stripping required. 85+ minutes per 1,000 sq ft — 8+ hours for the 6,000 sq ft floor, requiring the store to close for 2 days. Post-strip

5. **Total Cost**
   Strip labor at 3.5× standard rate + 2 days lost retail revenue + tile replacement. Estimated additional cost vs. annual strip cycle: significant.

Key Lesson: Deferred Strip Cycles Compound

Skipping a single strip cycle adds one year's accumulation. Skipping six does not add six years of cost — it adds exponentially more. The strip difficulty curve is not linear. At 14 coats, you are not paying for 14 coats of stripping — you are paying for chemistry, time, and tile risk that standard-rate pricing cannot

SECTION 03

Case Study C: The Correctly Managed Office Building

This scenario represents a medium-traffic North Bay office building operating a documented, coat-count-tracked VCT maintenance program for three consecutive years.

Scenario

A 4-story office building in North Bay has 18,000 sq ft of VCT across all floors, with high-traffic lobbies and elevator bays, medium-traffic open office floors, and low-traffic private office corridors. Binx Professional Cleaning establishes a zone-based coat count program at the start of the contract.

Program Design

Zone	Traffic	Initial Coat Count	Recoat Schedule	Strip Cycle
Lobby / Elevator	High	7 coats	2 coats every 8 weeks	Annual
Open office floors	Medium	5 coats	2 coats every 4 months	Annual
Private corridors	Low	4 coats	1 coat every 8 months	Every 2 years
Washrooms	Wet zone	4 coats + anti-slip	1 coat every 4 months	Annual

Year 1 Results

- Strip cycle completed in May — 18,000 sq ft in 3 standard shifts (7 hours each)
- Initial coat count program applied as specified — zone-differentiated
- Recoat visits on schedule; coat count logged at each visit
- Wet zone COF quarterly test: all zones 0.50+ dry, 0.52+ wet with anti-slip topcoat in washrooms
- Post-burnish gloss maintained above 75 GU in lobbies throughout the year

- Zero unplanned maintenance events; zero slip incidents

Year 3 Comparison

Metric	Year 1	Year 3
Strip cycle time	3 shifts	3 shifts (no change — documented strip prevents buildup)
Average lobby gloss	82 GU	80 GU (2-GU drop from minor program variance)
COF wet zone average	0.52	0.53 (slight improvement from anti-slip maintenance)
Unplanned repairs	0	0
Slip incidents	0	0
Total maintenance cost	Baseline	+2.1% (inflation — no operational escalation)

Key Lesson: Documentation Is the Difference

This facility's outcome is not exceptional — it is what a correctly documented, coat-count-tracked VCT program looks like after three years. The documentation creates the discipline. When each coat is logged, the strip trigger is never missed, the recoat schedule never drifts, and there are no surprises.

SECTION 04

Lessons Applied: Building Your Program

The Four Design Principles

1. **Set the right initial coat count for each traffic zone**
   Use the coat count tables in the main technical guide. Zone-differentiate your floor plan — do not apply the same coat count to a lobby and a storage corridor.

2. **Choose cleaning chemistry that doesn't degrade your finish**
   Neutral pH mopping solution (pH 6.5–8.5) for daily cleaning. Quaternary disinfectants only at approved concentrations on finished VCT. No alkaline cleaners above pH 9.0 in regular rotation.

3. **Log every coat and schedule the strip cycle before you hit the trigger**
   The strip trigger for medium-traffic standard acrylic finish is 9–10 coats. Know your current coat count. Plan the next strip cycle as soon as you start the current program.

4. **Treat all wet zones with anti-slip product — not just the ones that have had incider**
   Any VCT floor with 2+ coats fails NFPA 101 wet COF in moisture-exposed zones. Anti-slip treatment is not an upgrade — it is a compliance baseline.

Resources

- Full technical reference: VCT Finish Layer Count Optimization (binx.ca/guides/)
- Quick field reference: VCT Finish Layer Count Field Reference Card (binx.ca/guides/)
- Compliance crosswalk: VCT Floor Finish Compliance Standards Crosswalk (binx.ca/guides/)
- Open dataset: vct-finish-layer-count-2026 (github.com/veronica_caledon)
- Related guide: Commercial Floor Care: Strip, Wax & Maintain (binx.ca/guides/)

All resources are available as free downloads at binx.ca. For a facility-specific coat count audit and program assessment, contact Binx Professional Cleaning.

18,000 sq ft
Managed case study floor area

0
Unplanned incidents in Year 1–3

3 shifts
Annual strip cycle, all zones

ABOUT BINX

Why Clients Trust Binx Professional Cleaning

$	W	Q	G
$5M	WSIB	Quality	100%
Liability Insurance	Full Coverage	Audit Verified	Green Certified

Binx Professional Cleaning is a locally owned and operated cleaning company serving North Bay, Sudbury, and surrounding communities in Northern Ontario. With 70+ trained cleaning professionals, we deliver consistent, verified, and insured cleaning services to over 200 commercial and residential clients every week.

We are proud partners of Cleaning for a Reason, providing free cleaning services to cancer patients in our community. We use 100% green-certified Green Cleaning Chemical products across every account. Every cleaning visit is verified through our Quality Audit inspection platform — so you never have to wonder whether the work was done.

Don't Wait for a Failure to Fix Your Floor Program

Binx Professional Cleaning conducts VCT coat count audits and builds documented maintenance programs for commercial facilities across North Bay and Sudbury. Call (705) 476-2649.

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