OTTAWA COMMERCIAL EPOXY

Prep & Moisture Testing

Grinding and shot blasting, surface profiles, crack and joint repair, old coating removal, and slab moisture tests

5 Expert Answers from Coatings IQ

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Q1

Shot blasting noise in an Ottawa office tower, what to expect?

Shot blasting in an office tower is loud, dusty and disruptive, and the scheduling and containment decisions matter as much as the coating work itself.

What to Expect from the Noise and Dust

A shot blasting machine drives steel shot against the concrete at high speed and recovers it with a vacuum system. The machine itself produces significant impact noise, and the vacuum adds a continuous high-pitched tone. In a multi-tenant tower, that noise travels through the slab to the floors above and below, and through mechanical chases. Expect levels that make normal office conversation impossible in adjacent spaces. Dust containment on a shot blaster is better than open grinding because the machine is largely self-contained, but fine concrete dust still escapes at seams, doorways and penetrations if the contractor does not seal them before starting.

A few things shape how disruptive the work will be for your building:

- Floor area and condition: a larger pour or a heavily contaminated slab takes longer, extending the noise window.
- Slab thickness and construction type: a post-tensioned or composite deck transmits vibration differently than a solid pour; the contractor should know the slab type before starting.
- Occupied floors above and below: tenants on adjacent floors may need advance notice, and some leases or building rules set quiet hours.
- After-hours or phased work: evening and weekend shifts reduce tenant impact but the contractor should confirm the data sheet's temperature and ventilation requirements are met at those hours.

Under the Occupational Health and Safety Act and R.R.O. 1990, Reg. 851 (Industrial Establishments), the floor surface during and after prep must not present a hazard to workers on site. The contractor is responsible for dust and debris control while work is underway. If the slab has old resilient tile or black mastic, those materials may contain asbestos and must be tested before any grinding or blasting begins; removal of asbestos-containing material is governed by O. Reg. 278/05, which is separate from the floor coating work. Under OHSA s.30(1), the building owner must determine whether any designated substances are present and give prospective contractors a written list before a binding contract is signed.

For a building manager planning this work, a fair scope from the contractor should include: a written schedule showing which areas are blasted on which shifts, how the work zone is sealed from occupied spaces, what dust-collection equipment is used and how it is vented, the surface profile target (ICRI concrete surface profiles are the reference), and confirmation that the shot blasting result will be inspected before any primer goes down. Ask for the safety data sheet for every product being applied; Section 2 covers hazards and Section 9 covers flash point, which

matters if any solvent-based primer follows the blast.

Before signing, ask the contractor how they plan to notify and protect tenants on the floors directly above and below the work zone during blasting hours.

You can submit your project details through the request form on this site, and contractors listed in the Ottawa Construction Network directory will reply by email.

Q2

Uneven slab in an Alta Vista clinic, levelling before coating?

Whether an uneven slab in your clinic can be levelled before coating, and with what, depends on how uneven it is, the condition of the slab and what the coating's data sheet allows, so the contractor has to assess it and name the product in writing.

Ask the contractor what they think is causing the unevenness, how they will repair it, and which levelling or repair product they would use, with its data sheet. The coating's data sheet sets the surface profile it needs: the ones we read ask for about CSP 2 and above (a polyaspartic), CSP 3 to 4 (a resinous system) or CSP 3 to 5 (a urethane cement) on the ICRI scale.

On permits, ottawa.ca lists new flooring among projects that do not require a building permit, but that page does not say clearly whether it applies to commercial buildings, so confirm with the City of Ottawa before work begins. If any structural slab repair is involved, a permit may be required. If the clinic is in a designated heritage building, the standard exemptions do not apply.

For cost, published 2025 to 2026 contractor ranges put standard surface prep at about $1 to $3 per square foot when quoted separately, and commercial epoxy at about $8 to $15 per square foot installed, though your quote will differ depending on the depth of levelling needed, the extent of crack repair, the system chosen, and whether work must be phased around clinic hours. Ask the contractor to quote prep and levelling separately so you can see what each scope costs.

Before a contractor visits, it helps to gather what you know: how old the slab is, what has been on it before (tile, adhesive, previous coating), what spills or cleaning chemicals the floor sees, how much traffic and what kind, and how many days or partial days the clinic can realistically close. That information lets the contractor scope the job accurately from the first visit.

Q3

What surface profile does epoxy need on an Ottawa slab?

ICRI concrete surface profiles (CSP) are the scale contractors and data sheets use to describe how rough a slab needs to be before coating. For epoxy, the data sheets we have read ask for roughly CSP 3 to 4 on a resinous system, and the exact requirement is set by the data sheet for the specific product.

Ask the contractor how far your slab is from that profile and what prep it needs: old adhesive, paint, a failed coating or contamination all change the work. One epoxy data sheet also requires the slab to have cured for a minimum of 28 days before coating is applied.

Moisture is a separate check from profile. The data sheets we read ask for a slab at or below about 75 to 80 per cent relative humidity (tested to ASTM F2170) or within the moisture vapour emission rate the product allows (tested to ASTM F1869). If the slab tests above those limits, a moisture-tolerant primer or a different system may be needed. ASTM F2170 notes that test results reflect the slab's condition only at the time and location tested.

On the regulatory side, floor coating work in an occupied commercial building is likely construction work under the Occupational Health and Safety Act. Before any contractor starts, OHSA s.30 requires the owner to determine whether designated substances, including asbestos, are present and to give the contractor a list. Old vinyl tile or black mastic may contain asbestos and should be tested before any grinding takes place.

When reviewing a quote, ask the contractor to specify the surface profile they are preparing to, the prep method they will use to reach it, the moisture test results and what product they will use if the slab is too wet, and the data sheet for the specific epoxy product so you can confirm the profile requirement yourself.

One place where cost can quietly grow on a job like this is the moisture test result: if the slab reads above the product's limit, a moisture-mitigation primer is an added line item that was not in the original scope.

Q4

Oil-soaked shop floor in Gloucester, can it be coated?

Whether an oil-soaked concrete floor can be coated depends on how deeply the oil has penetrated and whether the contractor can achieve a clean, sound surface. The contractor needs to assess the slab before committing to a system or a price, and should tell you in writing how they will deal with the oil and whether the product's data sheet allows coating over the prepared surface. The prep has to reach the profile the chosen product's data sheet requires. ICRI concrete surface profiles (CSP 1 to 10) are the reference point; one resinous system data sheet asks for CSP 3 to 4, and a urethane cement data sheet asks for CSP 3 to 5. If oil remains in the pores after preparation, the data sheet for any product the contractor proposes should be checked to confirm whether that product can bond to the prepared surface. Whether the job is feasible depends on the slab, the product, and what the data sheet says.

On cost, published 2025-2026 contractor ranges for commercial epoxy run about $8 to $15 per square foot installed, with lighter systems from about $5 per square foot. Surface preparation, when quoted separately, runs about $1 to $3 per square foot, but heavily contaminated or damaged concrete costs more and we found too few published prices to give a range for that work. Your quote will differ.

Under the Occupational Health and Safety Act, s.30(1), before work begins you must determine whether any designated substances are present and prepare a list. O. Reg. 490/09 lists asbestos among designated substances. If there is old vinyl tile or black mastic under any part of the floor, have it tested before any grinding takes place.

Ask for proof of liability insurance and references on similar contaminated-slab jobs.

Before a contractor visits, pull together what you know: how long oil has been soaking in, what products were spilled and how often, what traffic the floor sees, whether any old tile or adhesive is present and needs testing, and how long the space can realistically close. Ask the contractor, once they have seen the slab, what surface profile they are targeting and which product data sheet they are working from.

Q5

Expansion joints in an Ottawa parking garage, how are they treated?

We found no published source on how expansion joints in an Ottawa parking garage should be treated, so the system and the method have to come from the contractor and the product's data sheet, in writing.

Ask the contractor which joint product they propose, what movement and traffic its data sheet is rated for, how they will prepare and repair the joint edges, and how the coating on the surrounding deck will meet the joint. Ask for the number of linear metres, whether the work can be phased by level or by lane to keep the garage open, and for any after-hours work as its own line in the quote.

On the regulatory side, this is likely construction work under the Occupational Health and Safety Act. Confirm with the City of Ottawa whether a permit is needed, especially if any structural slab repair is involved: ottawa.ca says structural repairs or alterations need a permit.

A fair quote for this work should specify the joint system by product type with its data sheet and safety data sheet, the prep method and any concrete repair, the number of linear metres covered, the expected closure window drawn from the product data sheet, whether phasing or after-hours work is included, proof of liability insurance.

Before you commit to a contractor for this job, ask them to show you the product data sheet for the joint system they are proposing and confirm in writing what movement range and traffic load that system is rated for.

Disclaimer: This guide is provided for informational purposes only by Ottawa Commercial Epoxy. It does not constitute professional advice. Always consult qualified contractors and your local building authority (the City of Ottawa or your own municipality), and Ottawa Public Health for a food premises, before starting any floor coating project. Read the product's data sheet and safety data sheet before work starts. Information is current as of November 15, 2026 and may change. Visit **ottawacommercialepoxy.ca** for the latest answers.