NEW BRUNSWICK CONCRETE

Maintenance & Care

Concrete sealing, cleaning, de-icing best practices, winter care, and longevity tips for NB concrete surfaces

21 Expert Answers from Concrete IQ

newbrunswickconcrete.com/construction-brain

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Q1

What is the best concrete sealer to use on an exposed aggregate driveway in Atlantic Canada, and how much does professional sealing cost?

For exposed aggregate driveways in Atlantic Canada, a penetrating silane/siloxane sealer is your best choice, offering superior protection against our brutal freeze-thaw cycles while preserving the natural stone appearance. Professional sealing typically costs $2-4 per square foot, making it a smart investment that can double your driveway's lifespan.

Penetrating sealers are ideal for exposed aggregate because they soak deep into the concrete matrix without forming a surface film that could peel or flake off. Unlike acrylic sealers that sit on top and create a glossy appearance (which looks unnatural on exposed aggregate), silane/siloxane sealers are invisible once cured but create a powerful water-repelling barrier within the concrete itself.

New Brunswick's 150+ annual freeze-thaw cycles make sealing absolutely critical. When water penetrates unsealed concrete and freezes, it expands by 9%, creating microscopic fractures that grow larger each winter. Exposed aggregate is particularly vulnerable because the surface texture creates more entry points for water. A quality penetrating sealer reduces water absorption by 90-95%, dramatically reducing freeze-thaw damage, salt scaling, and surface deterioration.

For Atlantic Canada conditions, look for sealers containing both silane and siloxane compounds. Silane molecules are smaller and penetrate deeper, while siloxane molecules are larger and provide surface protection. Popular brands include Prosoco Consolideck LS, SureCrete X-S Plus, and Foundation Armor SX5000. These typically cost $40-80 per gallon and cover 150-300 square feet depending on the concrete's porosity.

Professional application costs $2-4 per square foot for most New Brunswick driveways. A typical 500-square-foot driveway runs $1,000-2,000 for professional sealing. This includes surface cleaning, crack repair if needed, and proper application with commercial-grade sprayers. Some contractors offer package deals combining cleaning and sealing for $3-5 per square foot total.

Timing matters significantly in our Maritime climate. The best sealing window is late spring through early fall when temperatures stay consistently above 10°C and rain isn't forecast for 24-48 hours. New concrete must cure for at least 30 days before sealing, and the surface must be completely clean and dry. Professional contractors typically pressure wash first, then apply sealer when conditions are optimal.

Reapplication frequency depends on exposure and traffic. Most penetrating sealers last 2-3 years on driveways, though high-traffic areas or surfaces exposed to heavy road salt may need annual touch-ups. You'll know it's time to reseal when water no longer beads on the surface during rain.

DIY sealing is possible but professional application ensures even coverage and proper penetration. Contractors have commercial sprayers that apply consistent, thin coats without puddling or streaking. They also know how to handle windy conditions and can spot areas that need extra attention.

Need help finding a professional concrete contractor for sealing? New Brunswick Concrete can match you with experienced contractors who understand Maritime conditions and use quality sealers designed for our challenging freeze-thaw environment.

Q2

How often should you reseal an exposed aggregate or brushed concrete driveway in Moncton to protect it from salt and freeze-thaw damage?

In Moncton's harsh Maritime climate, you should reseal an exposed aggregate or brushed concrete driveway every 2-3 years to maintain protection against salt damage and freeze-thaw cycles. This frequency is more aggressive than recommendations for milder climates, but New Brunswick's 150+ annual freeze-thaw cycles and heavy winter salt use make regular sealing essential for long-term durability.

Why Moncton driveways need frequent sealing: The Greater Moncton area experiences some of the most punishing concrete conditions in Atlantic Canada. Winter temperatures regularly cycle above and below freezing from November through April, forcing water into concrete pores where it freezes, expands by 9%, and creates microscopic cracks. Municipal road salt and homeowner de-icing compounds compound this damage by lowering the freezing point and creating additional freeze-thaw cycles at the concrete surface. Salt-laden slush from Moncton streets splashes onto driveways throughout winter, and without proper sealing, this chloride penetration accelerates surface deterioration.

Sealer type matters significantly in Moncton's conditions. Use a penetrating silane/siloxane sealer ($40-$80 per gallon) rather than topical acrylic sealers. Penetrating sealers soak into the concrete matrix and repel water without creating a surface film that can peel or flake under freeze-thaw stress. Acrylic sealers may look good initially but often fail within one winter in Maritime conditions, leaving the concrete more vulnerable than before sealing. Quality penetrating sealers like Prosoco Consolideck LS or similar products designed for freeze-thaw climates will maintain protection for 2-3 years even under Moncton's aggressive conditions.

Application timing is critical for effectiveness. Apply sealer during warm, dry weather between May and September when concrete temperatures are above 10°C and no rain is forecast for 24-48 hours. The concrete surface must be completely clean and dry — power wash to remove dirt, oil stains, and any previous sealer residue, then allow 2-3 days of dry weather before application. Never apply sealer to damp concrete or when

temperatures will drop below 4°C within 24 hours, as this prevents proper penetration and bonding.

Signs your driveway needs resealing include water absorption rather than beading on the surface, visible salt staining or white efflorescence, minor surface scaling or spalling, and darkening of the concrete when wet. Don't wait for significant damage — preventive sealing every 2-3 years costs $200-$600 for a typical Moncton driveway but prevents $4,000-$8,000 replacement costs down the road.

Professional application versus DIY: Sealing is a manageable DIY project for most homeowners. Clean the surface thoroughly, choose a quality penetrating sealer designed for freeze-thaw climates, and apply with a pump sprayer or roller following manufacturer coverage rates (typically 150-300 square feet per gallon). However, if your driveway shows existing damage, has oil stains, or was previously sealed with an incompatible product, professional preparation and application may be worth the investment.

Need help finding a professional concrete contractor for sealing or driveway assessment? New Brunswick Concrete can match you with experienced local professionals who understand Moncton's specific climate challenges and use proven products for Maritime conditions.

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Q3

How do I seal a concrete driveway in New Brunswick?

Sealing your concrete driveway is one of the most important maintenance tasks you can do in New Brunswick -- and done correctly, it adds years to the life of your driveway by blocking the moisture and road salt that cause freeze-thaw damage.

The best sealer for NB driveways is a **penetrating silane/siloxane sealer** rather than a surface-film acrylic sealer. Penetrating sealers soak into the concrete matrix, chemically bonding with the cement to repel water at depth without changing the appearance of the surface. Surface film sealers add a sheen but sit on top of the concrete -- in NB's freeze-thaw conditions, that surface film is vulnerable to peeling and flaking as moisture trapped beneath it expands and contracts through the seasons. A quality penetrating sealer costs $40-$80 per gallon and covers 150-300 square feet per gallon depending on the porosity of your concrete.

The process for sealing an NB driveway:

First, clean thoroughly. A power washer (2,000-3,000 PSI) removes dirt, algae, road film, and loose surface material. Allow the concrete to dry completely -- 24-48 hours minimum in summer, longer if weather has been wet. Sealing damp concrete traps moisture and compromises adhesion.

Repair any cracks wider than a hairline before sealing. Use a polyurethane or silicone-based concrete crack filler and allow it to cure fully. Sealing over open cracks does not fix them -- it just hides them temporarily.

Apply the sealer with a paint roller (3/8-inch nap) or a low-pressure garden sprayer rated for sealers. Work in sections from the back of the driveway toward the street so you do not walk over wet sealer. Apply an even, thin coat -- do not glob it on. With penetrating sealers, the concrete absorbs what it needs; excess sealer sitting on the surface can leave white marks or residue.

Timing is everything in New Brunswick. Apply sealer only when temperatures will remain above 10 degrees Celsius for at least 24 hours -- that means May through September in most of NB. Do not seal if rain is forecast within 24 hours. The ideal window is a dry stretch of 2-3 days in warm weather.

For a new concrete driveway, wait a minimum of 28 days before applying sealer -- the concrete needs time to fully cure and off-gas. Ideally, wait 60-90 days.

Plan to reseal every 2-3 years for best protection against NB's freeze-thaw cycles and road salt. This is not optional maintenance in our climate -- it is the single most effective thing you can do to extend the life of your driveway. **New Brunswick Concrete can connect you with local contractors who offer professional sealing services if you prefer to have it done right.**

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Q4

How often should concrete be sealed in NB?

In New Brunswick, exterior concrete should be resealed every 2-3 years for penetrating silane/siloxane sealers, and every 1-2 years for surface acrylic sealers -- more frequently in high-traffic areas or surfaces exposed directly to road salt.

New Brunswick's climate is genuinely one of the harshest for concrete in Canada. With 150+ freeze-thaw cycles annually and heavy road salt exposure from November through April, unsealed concrete absorbs moisture and salt-water solution into its pores. Each freeze cycle expands that trapped moisture by 9%, progressively fracturing the concrete matrix from within. A quality sealer applied on schedule interrupts this cycle and dramatically extends the service life of your driveway, patio, steps, or walkway.

How to tell when resealing is due: the water bead test is reliable. Pour a cup of water on your concrete -- if it beads up and sits on the surface, the sealer is still working. If the water darkens the concrete and absorbs quickly, the sealer has worn down and it is time to reapply. Do this test in spring after winter salt exposure and again in fall before the freeze season begins.

Sealer type matters for reapplication frequency. Penetrating silane/siloxane sealers penetrate into the concrete and are not subject to surface wear the way film-forming sealers are -- they typically last 2-4 years in NB conditions. Surface acrylic sealers, which add a sheen and enhance colour on stamped or decorative concrete, wear off faster because they sit on the surface and are abraded by traffic, snowblowing, and UV exposure. Plan to reapply acrylic sealer every 1-2 years on a driveway, and every 2-3 years on a less-trafficked patio.

Critical timing for resealing in NB: apply in a dry weather window between May and September when temperatures are reliably above 10 degrees Celsius. The worst time to seal is in spring with variable temperatures and frequent rain, even though that is when your concrete looks most in need of attention after a hard winter. Wait for consistent warm, dry conditions. Clean the surface thoroughly, repair any cracks, and allow 24-48 hours of drying time before applying sealer.

Special cases calling for more frequent sealing:

- Driveways in coastal NB communities (Saint John, Shediac, Bathurst) exposed to salt air in addition to road salt
- Steps and porches that receive direct de-icer application in winter
- Stamped concrete patios where the coloured surface layer needs protection from UV and freeze-thaw
- Any concrete that is showing early signs of surface scaling or pitting

  For surfaces that are already scaling or spalling, sealing will slow further deterioration but will not repair existing damage. A concrete professional can assess whether resurfacing or overlay is a better option. **New Brunswick**

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Q5

What is the best de-icer for concrete in New Brunswick?

The safest de-icer for concrete in New Brunswick is sand for traction combined with calcium magnesium acetate (CMA) if a chemical de-icer is truly necessary -- and the most important rule is to never apply any chemical de-icer to concrete in its first winter.

This is one of the most damaging mistakes NB homeowners make every winter. Road salt (sodium chloride) is cheap and effective at melting ice, but it is devastating to concrete. The mechanism is two-fold: salt water solution penetrates into the concrete pores and lowers the freezing point, creating additional freeze-thaw cycles within the concrete itself at temperatures where plain water would stay frozen. Each extra cycle expands water in the pores by 9%, fracturing the concrete matrix from within. This is why NB driveways and steps that see heavy salt application begin scaling and pitting after just a few winters.

Calcium chloride (CaCl2) -- the pellet de-icer commonly sold in NB hardware stores in yellow bags -- is less harmful than sodium chloride but still causes some concrete damage through similar mechanisms. If you use calcium chloride, apply it sparingly on concrete that is at least one year old and has been properly sealed. Never use it on new concrete.

Calcium magnesium acetate (CMA) is the gentlest chemical de-icer for concrete. It melts ice more slowly than salt-based products but is much less corrosive and does far less damage to concrete surfaces and reinforcement. It is more expensive -- about $20-$40 per bag versus $8-$15 for sodium chloride -- but the cost is modest compared

to driveway replacement at $4,000-$8,000.

Urea-based de-icers (often marketed as pet-friendly) are gentler on concrete than chloride-based products but are less effective in very cold temperatures -- a real limitation in Bathurst, Edmundston, and northern NB where temperatures regularly drop below -20 degrees Celsius.

The practical NB approach for most homeowners:

- Shovel promptly and thoroughly after every storm -- less ice bonding to the surface means less de-icer needed
- Use coarse sand or fine grit for traction on walkways and steps -- it works without chemical attack
- If you must use a chemical de-icer on your concrete, choose CMA or use calcium chloride sparingly on sealed, cured concrete only
- Never use rock salt (sodium chloride) directly on concrete -- save it for the street and the interlocking stone areas
- Apply a quality penetrating sealer every 2-3 years to reduce the penetration of de-icing chemicals into the concrete

  New concrete driveways and slabs in their first winter should receive zero chemical de-icers. The surface is still developing its full strength and durability. Sand only. This advice applies in Moncton, Fredericton, Saint John, and across NB.

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Q6

Does road salt damage concrete driveways in NB?

Yes, road salt absolutely damages concrete driveways in New Brunswick -- and NB conditions make the damage worse than in most other parts of Canada due to our exceptionally high freeze-thaw cycle count.

New Brunswick roads are heavily salted from November through April. Salt spray and salt-laden slush are unavoidable on any driveway that connects to a municipal road. The salt water solution that splashes onto your driveway penetrates into the pores of the concrete and causes what is called **freeze-thaw salt scaling.** Here is the mechanism: salt water has a lower freezing point than plain water, so it remains liquid at temperatures where the concrete has already cooled to below 0 degrees Celsius. This solution penetrates deep into the pores, and when it does freeze, it expands by approximately 9%, fracturing the concrete matrix from within. Over New Brunswick's 150+ annual freeze-thaw cycles, this process strips away the surface of the concrete layer by layer -- the characteristic pitting, flaking, and scaling you see on aging NB driveways.

The damage is cumulative and accelerating. In the first two or three years after a new pour, the concrete looks fine. By years four through six on an unsealed, unprotected driveway, the surface begins to look rough and pitted. By year eight or ten, significant scaling may expose the aggregate. Once scaling begins, water infiltrates more easily and the damage accelerates.

How to protect your NB driveway from road salt damage:

The most effective protection is a quality **penetrating silane/siloxane sealer** applied every 2-3 years. These sealers chemically bond with the concrete and repel water and salt solution from penetrating into the pores. A sealed driveway in NB will outlast an unsealed one by 15-20 years with all other conditions equal.

Avoid applying additional salt-based de-icers on your driveway. You cannot prevent road salt splash, but you can avoid adding direct salt application. Use sand for traction on your driveway surface.

For new concrete driveways, **specify air-entrained concrete (4-7% air content, 25-32 MPa minimum)** -- the air bubbles provide microscopic relief chambers so freezing water has room to expand without fracturing the matrix. Non-air-entrained concrete exposed to NB's road salt environment will fail within 5-7 years. Air-entrained concrete, properly sealed and maintained, will last 30-40 years in the same conditions.

If your driveway already shows salt scaling damage, a surface resurfacing overlay can extend its life, but it requires professional application to bond properly and withstand NB freeze-thaw forces. **New Brunswick Concrete can connect you with local contractors who can assess your driveway and recommend the right repair or protection approach for your situation.**

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Q7

How do I clean oil stains from my concrete garage floor in NB?

Oil stains on a concrete garage floor require a degreaser-based approach, and the sooner you treat the stain, the better -- fresh oil is far easier to remove than oil that has had weeks or months to penetrate into the concrete.

Concrete is porous, and motor oil, transmission fluid, and other petroleum products penetrate readily into unsealed concrete floors. For a fresh spill (hours old), absorb as much as possible with kitty litter, sawdust, or oil-dry absorbent, then sweep and dispose. The absorbent material will capture the surface oil before it migrates deeper into the concrete.

For set stains on NB garage floors, the most effective approach is:

Start with a commercial concrete degreaser or trisodium phosphate (TSP) solution. Apply the degreaser concentrated to the stain, work it in with a stiff brush, and allow it to dwell for 15-30 minutes. TSP is available at NB hardware stores and is particularly effective on petroleum stains. Scrub vigorously, then rinse thoroughly with hot water. Repeat if the stain persists -- multiple treatments are usually needed for old, deep stains.

For stubborn or old oil stains, a poultice method works well: mix an absorbent material (pool filter sand, diatomaceous earth, or commercial poultice powder) with a solvent like acetone or mineral spirits to form a paste. Apply the paste over the stain, cover with plastic sheeting, tape the edges, and leave for 24-48 hours. The solvent softens the oil and the absorbent material draws it out as the paste dries. Remove the dried poultice, sweep, and clean the area with degreaser. This method is particularly effective on deep-set stains.

Biological enzyme cleaners are an eco-friendly option that use bacteria to consume petroleum hydrocarbons. They work more slowly than solvents but are effective for large or diffuse staining and leave no chemical residue. Apply, keep moist, and allow 24-72 hours for the enzymes to work.

For very large or severe oil contamination (floor soaked in oil from a leaking vehicle over many months), the oil may have penetrated too deeply to remove completely. In this case, professional floor coating or resurfacing after deep cleaning may be the practical solution.

After cleaning, seal your garage floor with a penetrating sealer or epoxy coating to prevent future oil and fluid penetration. In NB's climate, a sealed floor also resists the moisture and road salt that gets tracked in through the winter months. Sealing is the single best step you can take to make future cleaning easier and protect the concrete from freeze-thaw damage on the garage apron and at the doorway.

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Q8

Should I power wash my concrete driveway in New Brunswick?

Yes, power washing your concrete driveway is good maintenance in New Brunswick -- but use the right technique and pressure to avoid damaging the surface, and plan to reseal after washing.

NB driveways accumulate a tough combination of road salt residue, dirt, algae (especially in shaded areas that stay damp), vehicle fluids, and oxidized organic matter. A good power wash in spring removes the winter's salt and grime buildup and lets you inspect the concrete surface for any new cracking or spalling damage that occurred over the freeze season.

Pressure and technique matter. Use a pressure washer in the 2,000-3,000 PSI range for a concrete driveway. Consumer gas pressure washers in this range are widely available for rental from NB equipment rental shops at around $60-$100 per day. Use a 25-degree or 40-degree fan tip rather than the 0-degree (pencil) tip -- the narrow jet from a 0-degree tip at close range can etch and damage the concrete surface, especially on older or softer concrete.

Keep the nozzle 6-12 inches from the surface and maintain a consistent distance and angle to avoid leaving wash marks. Work in the direction of the slope so water drains away from the house foundation. Pay attention to control joint lines and edges where algae tends to accumulate.

For moss, algae, and mildew (very common in shaded NB driveways, particularly on properties near Riverview's tree-lined streets or Moncton's older neighbourhoods), apply a concrete-safe algaecide or diluted bleach solution (1 part bleach to 10 parts water), let it dwell for 10-15 minutes to kill the growth, then power wash off. This is far more effective than pressure washing alone, which can scatter spores without killing them.

After power washing, allow the concrete to dry fully -- 24-48 hours in warm weather, longer in cool spring conditions -- before evaluating whether the surface needs sealing. Power washing strips the surface and temporarily opens the pores, making it an ideal time to apply sealer once dry. If you have not sealed in the past 2-3 years, plan to seal immediately after the post-wash drying period.

Do not power wash in temperatures below 5 degrees Celsius. In early spring NB, nights can still drop below freezing into May in some years. Water left in surface pores or cracks from power washing that then freezes overnight can worsen existing cracking. Wait for a confirmed warm stretch before washing.

Annual spring washing combined with regular sealing every 2-3 years is the most effective maintenance routine for extending the life of an NB concrete driveway.

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Q9

How do I prevent salt damage on my NB concrete steps?

Concrete steps are among the most salt-damaged concrete features in New Brunswick because they receive direct de-icer application through the winter and are exposed on multiple faces to freeze-thaw cycling -- but consistent sealing, smart de-icing choices, and prompt snow removal can protect them effectively.

NB concrete steps suffer more than driveways for a specific reason: homeowners apply de-icers directly to steps to prevent slip hazards, and the salt-water solution then runs over the vertical faces, risers, and edges of the steps -- surfaces with more exposure area per volume of concrete. The corners and edges of steps are especially vulnerable because they have the least mass and the most surface area exposed to freeze-thaw cycles.

The most important preventive measure is a quality penetrating sealer applied before the first winter and reapplied every 2 years. A silane/siloxane penetrating sealer repels moisture and the chloride ions from salt from penetrating into the concrete. This is not optional maintenance for NB steps -- it is the difference between steps that last 25+ years and steps that begin scaling after 3-5 winters. Apply in late September, after the last summer heat but before temperatures drop below 10 degrees Celsius for the season.

Change your de-icing approach on concrete steps. Replace sodium chloride (road salt) with coarse sand for traction. Sand does not melt ice but provides grip and does zero damage to concrete. If you need chemical ice melting on steps, use calcium magnesium acetate (CMA) or potassium acetate -- both are gentler on concrete than chloride-based products. Never apply any chemical de-icer to concrete in its first winter regardless of the product -- the surface is still hardening.

Shovel promptly after every snowfall. The less snow and ice bonding time on the step surface, the less de-icer you need. A quick shovel within an hour or two of a snowfall is far less damaging than a full night of salt treatment on a thick ice layer.

Use a rubber or plastic-bladed shovel on steps -- metal-bladed shovels can chip and scratch the concrete surface over time, creating entry points for moisture.

Check your downspout drainage. Many NB homes direct roof drainage toward the front steps area. Ice formation from dripping water and freeze-thaw cycling from that moisture source can damage steps faster than foot traffic. Extend downspouts to direct water away from the steps.

For steps that already show significant scaling, spalling, or crumbling edges, repair with a concrete patching product or have a professional apply a resurfacing overlay. **New Brunswick Concrete can match you with a local contractor for step repair or replacement estimates.**

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Q10

What is the best way to protect concrete from freeze-thaw in NB?

The best protection against New Brunswick's freeze-thaw cycles starts at the mix design stage -- air-entrained concrete -- and is maintained through the life of the concrete with regular penetrating sealer application every 2-3 years.

New Brunswick experiences approximately 150+ freeze-thaw cycles annually -- among the highest in Canada. This is not an abstract statistic; it is the primary reason NB concrete fails faster than concrete in most other provinces when it is not properly specified and maintained. Every freeze-thaw cycle forces water into concrete pores, expands it by 9% as it freezes, and contracts it as it thaws, progressively fracturing the concrete matrix from within.

Air entrainment is the single most important freeze-thaw protection for new concrete in NB. Air-entrained concrete contains billions of microscopic air bubbles (4-7% air content) distributed throughout the mix. These bubbles act as relief chambers -- when water in the pores freezes and expands, it flows into the adjacent air void rather than fracturing the concrete matrix. This simple mechanism extends the life of exterior NB concrete from 5-10 years (non-air-entrained) to 25-40 years. Always specify air-entrained 25-32 MPa concrete for any exterior pour in New Brunswick.

For existing concrete, penetrating sealers are the primary protection tool. A silane/siloxane penetrating sealer chemically bonds with the concrete and repels water from entering the pores. Less water in the concrete means fewer freeze-thaw fractures. Apply the first sealer coat to new concrete after the initial 28-day cure period, ideally waiting 60-90 days for best adhesion. Reapply every 2-3 years, timed for dry weather between May and September when temperatures are consistently above 10 degrees Celsius.

Minimize de-icer use on concrete surfaces. Salt-based de-icers compound freeze-thaw damage by keeping the surface wet through lower freeze-point temperatures, creating more freeze-thaw cycles at the concrete surface than ambient temperature alone would cause. Use sand for traction; reserve chemical de-icers for genuine safety emergencies and choose CMA or calcium chloride over sodium chloride when you must use them.

Drainage is a freeze-thaw protection measure. Water that pools on or around concrete freezes in place and accelerates surface damage. Ensure your driveway, patio, and walkways slope to drain -- even a 1/8-inch per foot slope is sufficient. Keep control joints clean and sealed so water does not pond in them.

Inspect annually in spring, when the damage from the previous winter is most visible. Look for new cracking, surface scaling, spalling, or frost heave under slabs. Small cracks caught early and sealed prevent water infiltration that would widen them through the next freeze season. **New Brunswick Concrete can connect you with local professionals for concrete inspection and maintenance across Moncton, Fredericton, Saint John, and all of**

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Q11

How do I remove rust stains from concrete in New Brunswick?

Rust stains on concrete are caused by iron oxidation -- typically from metal patio furniture, tools, fertilizer, or reinforcing steel near the surface -- and respond well to oxalic acid-based cleaners, which are the most effective and accessible option for NB homeowners.

Rust stains are a chemical deposit rather than a physical surface contaminant, which is why pressure washing alone rarely removes them. The iron oxide that creates the orange-brown staining needs a chelating agent -- a chemical that binds to iron ions and lifts them out of the concrete pores. Oxalic acid is the standard active ingredient in concrete rust removers and is available at NB hardware and janitorial supply stores.

For light to moderate rust stains: apply a commercial oxalic acid concrete cleaner according to the manufacturer's directions. Products such as concrete-specific rust stain formulas are available at most NB building supply retailers. Apply to the dampened concrete surface, work in with a stiff nylon brush, and allow to dwell for 5-10 minutes. Rinse thoroughly with clean water. Multiple applications may be needed for deep stains. Always rinse thoroughly -- oxalic acid residue left on concrete can cause secondary damage.

For a DIY solution using oxalic acid powder: mix one cup of oxalic acid crystals (available at hardware stores as wood bleach or deck cleaner) in one gallon of warm water. Wear chemical-resistant gloves, eye protection, and old clothes -- oxalic acid is corrosive. Apply, scrub, let dwell, then rinse thoroughly. Neutralize with a baking soda solution (1 cup per gallon of water) before the final rinse to ensure no acid residue remains.

Lemon juice and white vinegar are mild acid options for very light surface rust staining. Apply concentrated, let sit for 30 minutes, scrub and rinse. These work well for staining from planters or furniture sitting on a patio through a wet NB summer but will not penetrate deep rust from rebar or structural sources.

Phosphoric acid-based products are stronger than oxalic acid and work well on heavy or widespread rust staining. Used in the concrete industry as an etching agent, phosphoric acid is effective but requires careful application and thorough neutralization.

A word of caution about rebar rust: if you are seeing rust staining seeping through a driveway or structural slab, this is a sign that rebar near the surface has corroded and is expanding -- which can cause surface delamination and spalling over time. This is a structural concern, not just a cosmetic one. Have a concrete professional assess the extent of the reinforcement corrosion. **New Brunswick Concrete can match you with a local contractor for a professional assessment.**

After removing rust stains, seal the concrete to minimize future moisture penetration that causes new staining from embedded iron sources.

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Q12

When should I reseal my stamped concrete patio in NB?

Reseal your stamped concrete patio every 1-2 years in New Brunswick -- more frequently than plain concrete because the acrylic or polyurethane sealer that gives stamped concrete its colour depth and sheen wears off under NB's UV exposure, foot traffic, and freeze-thaw stress.

Stamped concrete relies heavily on its sealer for both appearance and protection. The sealer does two jobs: it enhances and protects the colour of the concrete stain or integral pigment, and it seals the surface against moisture, road salt, and freeze-thaw damage. When the sealer thins, you lose both functions simultaneously -- the concrete looks dull and faded, and it becomes vulnerable to moisture infiltration that causes scaling and staining.

How to tell when your stamped concrete needs resealing:

- Colour looks dull or faded -- sealed stamped concrete has a distinct sheen or wet-look gloss. When colours look chalky or flat, the sealer has thinned significantly
- Water no longer beads -- pour a cup of water on the surface. If it absorbs quickly and darkens the concrete rather than beading up, the sealer is depleted
- Surface feels rough or powdery -- light surface abrasion of the sealer coat reveals the texture beneath
- White haze or bubbling visible on the surface -- this indicates the existing sealer is delaminating, likely from moisture trapped beneath it

  The resealing process for a NB stamped concrete patio:

  Clean the surface thoroughly with a concrete cleaner or light power wash (1,500-2,000 PSI -- not too aggressive on stamped surfaces). Allow to dry completely -- minimum 48 hours in warm weather. If the existing sealer is peeling or delaminating, it must be stripped with a chemical sealer stripper before reapplication; applying new sealer over failing sealer creates adhesion problems.

  Apply a solvent-based acrylic sealer compatible with stamped concrete in thin, even coats. Two thin coats are better than one thick coat -- thick sealer application traps moisture beneath and peels under NB freeze-thaw cycles. Apply with a low-pressure airless sprayer or a fine-nap roller, working in sections and maintaining a wet edge.

  Critical NB timing: only reseal between May and September when temperatures are reliably above 15 degrees Celsius and no rain is forecast for 24-48 hours. Cold-temperature sealer application cures improperly and peels within months.

  Professional resealing of a typical 300 square foot NB stamped patio costs $300-$700 depending on surface preparation required. DIY with a quality product runs $100-$200 in materials. **New Brunswick Concrete can connect you with local decorative concrete specialists who maintain stamped patios across Moncton, Fredericton, Saint John, and surrounding areas.**

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Q13

How do I prevent efflorescence on my concrete walls in NB?

Efflorescence -- the white chalky deposits that appear on concrete walls and foundations -- is caused by water carrying soluble salts to the surface as it evaporates, and preventing it in New Brunswick requires addressing the moisture source rather than just cleaning the surface deposits.

Efflorescence is very common on NB foundation walls, retaining walls, and basement concrete because our climate creates ideal conditions: wet springs from snowmelt, high soil moisture, and temperature differentials between the ground and the wall surface that drive moisture migration. The white powder is calcium carbonate and other mineral salts that were dissolved in water moving through the concrete, deposited on the surface when the water evaporated. It is not structurally harmful on its own, but it is a reliable indicator of water movement through the concrete -- which, over time, can lead to moisture damage, spalling, and basement water issues.

To prevent efflorescence, you need to reduce water migration through the concrete wall:

On the exterior side, ensure that soil is graded to drain away from the foundation -- a minimum slope of 6 inches over 10 feet is the NB standard. Extend downspouts at least 6 feet from the foundation. Where possible, maintain a 4-6 inch gap between soil and the top of the foundation wall to reduce direct soil contact and moisture wicking.

Apply a quality **penetrating concrete sealer (silane/siloxane)** to exterior-exposed concrete walls. This reduces water absorption from rainfall, snowmelt, and soil contact. On basement walls, interior waterproofing paints (masonry waterproofer) can reduce moisture transmission from the inside, though they do not address the exterior source.

For new concrete walls, using a low water-to-cement ratio mix (0.40 or below), proper concrete vibration during placement to eliminate voids, and quality curing reduces the porosity of the concrete and its susceptibility to efflorescence. Specifying 32 MPa concrete for retaining walls and foundations rather than standard 25 MPa reduces long-term water permeability.

Cleaning existing efflorescence is straightforward: dry brushing removes fresh deposits. For older or heavier deposits, diluted muriatic acid (1 part acid to 10 parts water, applied carefully with full protection -- gloves, eye protection, old clothes) dissolves the calcium carbonate. Rinse thoroughly and neutralize with a baking soda solution. Then address the moisture source, or the efflorescence will return within months.

If efflorescence is recurring heavily on a foundation wall, a professional waterproofing assessment is warranted -- it indicates significant water movement through the concrete that may eventually cause basement moisture problems. **New Brunswick Concrete can connect you with local foundation waterproofing specialists through the New Brunswick Construction Network.**

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Q14

What is the best way to clean mould off concrete in New Brunswick?

Diluted bleach solution is the most effective and widely available treatment for mould on concrete in New Brunswick -- but killing the mould is only half the job; addressing the moisture that enables it to grow is what prevents it from returning.

Mould on concrete is extremely common in NB, particularly on shaded driveways, north-facing walkways, basement walls, and patio surfaces near tree canopy. Our Maritime climate -- wet springs, humid summers, and high annual precipitation -- creates ideal conditions for mould and algae colonization on porous concrete surfaces. Beyond appearance, surface mould can make concrete walkways and steps dangerously slippery in wet weather.

The standard cleaning approach for NB concrete mould:

Mix a solution of 1 part household bleach to 3 parts water. For heavy mould infestations, up to 1 part bleach to 1 part water can be used. Wet the concrete surface with water first, apply the bleach solution, and allow it to dwell for 10-15 minutes. Scrub vigorously with a stiff-bristled brush, then rinse thoroughly with a garden hose or pressure washer. On vertical surfaces like basement or retaining walls, apply from the bottom up to prevent streaking.

Protect nearby plants and grass before applying bleach -- it will kill vegetation on contact. Cover shrubs and garden areas with plastic sheeting before treatment, and rinse the surrounding soil and plants thoroughly with clean water after the treatment is complete.

Trisodium phosphate (TSP) is an effective alternative to bleach, particularly for heavily soiled concrete. Mix 1/2 cup TSP per gallon of warm water, scrub, and rinse. TSP is available at NB hardware stores and is particularly

effective on outdoor concrete that has accumulated years of grime along with the mould.

Commercial concrete and masonry cleaners formulated for mould and mildew are available at NB building supply retailers. Products containing quaternary ammonium compounds or sodium hypochlorite kill mould on contact and some provide residual protection against regrowth.

After cleaning, **apply a penetrating sealer** to reduce the moisture absorption that allows mould to take hold. Sealing is particularly important on shaded, moisture-prone surfaces like a north-facing walkway or a patio under tree cover.

For basement walls with mould, cleaning the surface is necessary, but if mould returns repeatedly it indicates ongoing moisture infiltration through the concrete. That is a waterproofing problem -- a professional assessment of the drainage, weeping tile, and exterior grade around the foundation may be needed. **New Brunswick Concrete can help you find qualified contractors for concrete cleaning, sealing, and foundation waterproofing services across all of NB.**

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Q15

Can I use a snow blower on stamped concrete in NB?

Yes, you can use a snow blower on stamped concrete -- but use a model with plastic or rubber-edged augers rather than metal, and keep the auger slightly above the surface to avoid scratching and gouging the textured concrete.

Stamped concrete has a textured surface with relief patterns (stone, brick, slate, wood grain, etc.) that create raised and recessed areas. Metal auger edges on a standard snow blower can catch the raised edges of the stamped

pattern, scratch through the sealer coat, chip corners of the pattern, and over years cause progressive surface damage that is expensive to repair. The sealer on stamped concrete is particularly vulnerable -- once the sealer is scratched through in areas, those spots will stain, absorb moisture, and deteriorate faster than the sealed areas.

Two-stage snow blowers with rubber auger paddles are the safest choice for stamped concrete. The rubber paddles flex and conform to the texture rather than grinding against it. Single-stage electric or battery snow blowers also typically use rubber or plastic paddles and are gentle on decorative surfaces.

For the chute and auger height setting: keep the auger set to ride just above the concrete surface rather than in contact with it. A small amount of snow left on the surface is fine -- you can clear the last 1/4 inch with a rubber-bladed pusher shovel. Trying to get the blower all the way down to bare concrete increases the risk of contact damage.

What NOT to use on stamped concrete in NB winters:

- Metal-bladed shovels -- chip edges and scratch the surface
- Steel ice chippers -- very high risk of chipping stamped pattern elements and cracking the sealer
- Sodium chloride (road salt) -- damages the sealer and causes freeze-thaw scaling underneath
- Gravel or coarse aggregate for traction -- scratches the surface and is difficult to clean out of the pattern

  For traction on NB stamped concrete, use fine sand or kitty litter. Both provide grip without damaging the surface. Sweep off thoroughly once ice and snow conditions clear to prevent staining.

  If chemical de-icing is absolutely necessary for safety on stamped steps or landings, use CMA (calcium magnesium acetate) -- it is gentler on concrete and sealers than chloride-based products.

  Inspect your stamped concrete sealer every spring for areas where the snow removal season has thinned or damaged the sealer coat, and plan a resealing application in May or June before the summer entertaining season. Regular resealing every 1-2 years keeps NB stamped concrete looking good and protected despite our demanding winters.

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Q16

How do I maintain my concrete driveway through a NB winter?

The keys to protecting your NB concrete driveway through winter are: a quality sealer applied before freeze season, smart de-icing choices, prompt snow removal, and a post-winter inspection to catch any new damage early.

New Brunswick winters are genuinely harsh for concrete. Temperatures range from near-freezing to -25 degrees Celsius or colder in northern NB, and the freeze-thaw cycle count of 150+ annually is among the highest in Canada. Road salt is applied heavily on municipal streets from November through April, and that salt-laden slush and spray lands on your driveway whether you apply any de-icer yourself or not. A proactive maintenance approach is the difference between a driveway that lasts 30 years and one that looks weathered and scaled after 8-10 winters.

Before winter arrives (September-October): Apply or inspect your existing sealer. If it has been 2-3 years since the last application, or if water is no longer beading on the surface, apply a penetrating silane/siloxane sealer before the freeze season begins. Do this while temperatures are still reliably above 10 degrees Celsius -- a dry period in September or early October is ideal. Seal any cracks wider than a hairline with a flexible polyurethane or silicone concrete crack filler. A crack that is open going into winter will be larger by spring as water in it freezes and expands.

During winter: Shovel snow promptly after storms -- within a few hours if possible. The less time snow and ice spend bonded to the concrete, the less moisture works into the surface. Use a rubber or plastic-bladed shovel rather than a metal one to avoid scratching the concrete. For a snow blower, ensure the auger paddles are rubber rather than metal.

For de-icing, **use coarse sand for traction** on the driveway surface. Avoid sodium chloride (rock salt) directly on the concrete -- the salt spray from the road is unavoidable, but you can avoid adding direct application. If chemical de-icing is needed for ice that shovel and sand cannot manage, calcium magnesium acetate (CMA) is the gentlest option for concrete.

Spring, after freeze season (April-May): Power wash the driveway to remove the winter's salt residue, sand, and grime accumulation. Allow 24-48 hours to dry. Inspect for new cracking, scaling, or spalling. Repair any cracks before they widen through the next winter cycle. If the sealer has thinned, plan a resealing application once temperatures are consistently warm.

Following this annual cycle -- fall sealer check, winter smart de-icing, spring wash and inspection -- keeps NB driveways in good condition for decades. **New Brunswick Concrete can connect you with local contractors for professional sealing, crack repair, and driveway assessment across Moncton, Fredericton, Saint John,**

Dieppe, Riverview, Miramichi, Bathurst, and beyond.

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Q17

How do I protect my new concrete patio through its first NB winter?

The first winter is the most critical for new concrete in New Brunswick — fresh concrete is more porous than cured concrete and far more vulnerable to the salt, freeze-thaw cycles, and moisture that define a Maritime winter. Getting through that first season without damage sets the foundation for decades of performance.

Wait the full curing period before winter arrives. Concrete reaches roughly 70% of its design strength in the first 7 days and about 90% in 28 days. If your patio was poured in late September or October, give it the full 28-day cure before any freezing temperatures arrive. Do not load it with heavy furniture or planters while it is still curing, and keep foot traffic minimal for the first week.

Apply a penetrating sealer before freeze-up. This is the single most important thing you can do for a new NB patio. A silane/siloxane penetrating sealer soaks into the concrete's pore structure and repels water from within, rather than forming a film on top. Apply it when temperatures are consistently above 5°C and rain is not expected for 24-48 hours — typically late September to mid-October in southern NB (Moncton, Fredericton, Saint John areas). Cost is roughly $40-$80 per gallon, covering 150-300 square feet per gallon depending on the concrete's porosity. For new concrete, wait at least 28 days after the pour before sealing.

Never use road salt or rock salt on new concrete. This cannot be overstated. Sodium chloride is devastating to concrete in its first year, when the surface is most porous. The salt solution penetrates the surface, lowers the freezing point of trapped water, and creates intense freeze-thaw cycling within the concrete matrix itself —

dramatically accelerating spalling and surface scaling. Use **sand** for traction all winter. If you need a chemical de-icer in an emergency, calcium magnesium acetate (CMA) is the least damaging option, but even this should be avoided on concrete less than one year old.

Clear snow promptly to reduce the time melt water sits on the surface. Avoid metal shovels that can chip or scratch the surface — use a plastic shovel or snow blower.

Plan for spring inspection. After your first thaw in March or April, inspect the surface for scaling (thin layers flaking off), spalling (deeper pitting), or cracking. Minor surface issues discovered early can often be addressed with a concrete resurfacer. Cracks wider than 1/4 inch or any sign of structural movement should be assessed by a professional. New Brunswick Concrete can connect you with a local contractor for a post-winter inspection if you're concerned.

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Q18

What is the best concrete cleaner for NB driveways?

The best concrete cleaner for a New Brunswick driveway depends on what you're cleaning — oil stains, rust, mould and algae, or general traffic grime each responds to different products. Using the wrong cleaner wastes time and money, and some products can actually damage concrete or compromise a sealer if applied incorrectly.

For oil and grease stains — the most common driveway problem in NB — a commercial degreaser or concrete-specific oil stain remover is your best option. Products containing sodium lauryl sulfate or citrus-based solvents work well on fresh to moderately aged stains. For older, set-in oil stains, apply a poultice made from powdered

laundry detergent or oil-dry absorbent mixed with hot water, scrub with a stiff brush, let it sit for 30 minutes, then rinse. For heavily saturated stains, a commercial product like Concrete Cleaner & Degreaser (available at NB building supply stores) followed by a pressure wash at 1,500-2,500 PSI is effective.

For efflorescence (the white powdery mineral deposits that appear on driveways and retaining walls, especially in spring) — a diluted muriatic acid solution (1 part acid to 10 parts water) applied with a plastic brush and rinsed thoroughly works well. Always neutralize with a baking soda and water rinse before the acid dries, and wear gloves, eye protection, and old clothing. This is standard practice for NB driveways where spring melt water carries mineral salts to the surface.

For mould, algae, and dark staining — common in shaded NB driveways, especially in river valley communities like Fredericton and Miramichi where moisture lingers — oxygen bleach (sodium percarbonate) mixed with warm water is effective and less damaging to surrounding vegetation than chlorine bleach. Apply, let dwell for 10-15 minutes, and pressure wash off.

For general cleaning and pre-sealing prep — a concrete and masonry cleaner followed by a thorough pressure wash is the standard approach. If you're preparing to apply a sealer (which you should be doing every 2-3 years in NB), the surface must be completely clean and dry before sealer goes down. Any oil, dirt, or residue trapped under the sealer will cause adhesion failure and peeling.

After cleaning, always **inspect the surface for cracks and spalling** before resealing. Small cracks under 1/4 inch can be filled with a concrete crack filler before the sealer is applied. NB driveways benefit most from a penetrating silane/siloxane sealer applied after cleaning, as it provides the best freeze-thaw and salt protection for the Maritime climate.

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Q19

How do I remove calcium deposits from my basement walls in NB?

Calcium deposits on New Brunswick basement walls — that white, chalky or crystalline residue that appears on poured concrete or block walls — are a form of efflorescence caused by water carrying dissolved minerals through the concrete and depositing them on the surface as the water evaporates. In NB, this is extremely common due to spring thaw, high water tables in low-lying areas around Moncton, Fredericton, and the Saint John River valley, and seasonal ground saturation.

Understanding what you're seeing matters before you start cleaning. Soft, powdery white deposits are typical efflorescence — mineral salts deposited harmlessly on the surface. Hard, grey-white crusty deposits that look like stalactites are calcium carbonate (calcite) formed by water that has dissolved concrete itself — a sign of more significant water movement through the wall. The cleaning approach is similar, but the calcite deposits signal a drainage or waterproofing issue that should be addressed beyond cosmetic cleaning.

For removing the deposits, start with dry brushing using a stiff wire brush to knock off the loose surface material. Then apply a **diluted muriatic acid solution** — typically 1 part acid to 10 parts water for efflorescence on basement walls. Apply with a plastic (not metal) brush or sprayer, let it fizz and react for 5-10 minutes, then scrub and rinse thoroughly with clean water. Always neutralize the acid with a baking soda and water solution before it dries. Work in a well-ventilated space — muriatic acid fumes are significant in an enclosed basement. Wear chemical-resistant gloves, safety glasses, and old clothing.

For lighter deposits or if you prefer not to use acid, **white vinegar** (full strength) is a gentler alternative that works reasonably well on fresh efflorescence. Phosphoric acid-based masonry cleaners (available at NB hardware stores) are a middle-ground option — less aggressive than muriatic acid but more effective than vinegar.

After cleaning, the critical step is addressing the source. Efflorescence is water telling you it is moving through your foundation. On NB homes, the most common causes are: inadequate grading that directs water toward the foundation, clogged or failed weeping tile, downspouts discharging too close to the house, or cracks in the foundation wall. Cleaning the deposits without addressing the water source means they'll return within one or two rainy seasons.

If the deposits are extensive, recurring, or accompanied by visible cracks, seepage, or damp spots on the wall, a professional assessment is warranted. New Brunswick Concrete can connect you with local contractors who handle foundation waterproofing throughout NB, including Fredericton, Moncton, Saint John, and surrounding communities.

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Q20

Can I use sand instead of salt on my concrete driveway in NB?

Yes — sand is actually the preferred de-icing alternative for concrete driveways in New Brunswick, and using it instead of road salt is one of the best decisions you can make for your concrete's longevity. Salt is concrete's worst enemy in NB's climate, and the damage it causes is cumulative, permanent, and expensive to fix.

Road salt (sodium chloride) works by lowering the freezing point of water, which sounds helpful until you understand what it does to concrete. The salt solution penetrates the porous surface of the concrete, and when it refreezes — often at a lower temperature than plain ice would — it creates additional freeze-thaw cycling within the concrete itself. This internal cycling is what causes the familiar surface scaling and spalling seen on NB driveways: thin flakes peeling off the surface, exposing a pitted, roughened interior. NB already experiences 150+ freeze-thaw cycles per year without any help from salt. Adding a chemical de-icer multiplies the number of cycles the surface endures and concentrates them at the most vulnerable depth.

Sand provides traction without any chemical reaction. It doesn't melt ice, so you'll still need to shovel and clear snow diligently, but on a well-maintained driveway, sand on the remaining thin layer of ice or packed snow is often sufficient for safe footing and vehicle traction. Use coarse builder's sand or commercially bagged traction sand, available at most NB hardware and building supply stores for roughly $5-$10 per bag.

One practical note about sand: it doesn't disappear in spring — you'll need to sweep or blow it off the driveway and yard after the thaw. This is a minor inconvenience compared to the alternative. Sand can also wash into storm drains and should be swept up before it migrates.

If you need chemical de-icing in a genuine safety situation — an icy walkway for elderly family members, or a slope that is genuinely dangerous — **calcium magnesium acetate (CMA)** is the least damaging option for concrete. It is

more expensive than road salt (roughly $15-$25 for a 10 kg bag versus $5-$8 for rock salt) but causes significantly less surface damage. Avoid calcium chloride on concrete less than one year old.

The best long-term approach in NB is to **seal your driveway every 2-3 years** with a penetrating silane/siloxane sealer, which dramatically reduces the concrete's ability to absorb salt-laden water in the first place. A sealed, well-maintained concrete driveway can last 30-40 years in the Maritime climate; an unsealed driveway treated with road salt may show significant surface deterioration within 5-10 years.

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Q21

How long after pouring should I seal concrete in New Brunswick?

In New Brunswick, you should wait a minimum of 28 days after pouring before applying a penetrating sealer — and for new concrete that will face its first winter, timing the sealing to happen in that 28-day-to-first-freeze window is critical. Sealing too early traps moisture inside the concrete before curing is complete; sealing too late leaves the fresh surface exposed to freeze-thaw cycles and salt without protection.

The 28-day rule exists for good reason. Concrete cures through hydration — a chemical reaction between cement and water that takes time. At 7 days, concrete has reached roughly 70% of its design strength. At 28 days, it has reached approximately 90%. During this period, the concrete is still releasing moisture from within. If you apply a sealer before the concrete is sufficiently dry and cured, the trapped moisture can cause the sealer to peel, blush, or fail to bond properly — wasting the cost of the sealer and leaving the surface unprotected.

Timing relative to NB seasons is equally important. If your concrete was poured in August, you have a comfortable window: pour in August, seal in late September — giving you 28+ days and still well ahead of frost

season. If you poured in early October, you're working with a tighter timeline. In southern NB (Moncton, Fredericton, Saint John), the first consistent killing frosts typically arrive in late October to early November, giving you a narrow but workable window. In northern NB (Bathurst, Miramichi), that window may close earlier.

Sealer application requires temperatures above 5-10°C for the product to penetrate and cure properly. Most penetrating sealers have a minimum application temperature of 5°C and need 24-48 hours without rain. If you're applying in October, watch the forecast carefully.

For existing concrete, the timing is more flexible — you can seal in spring or fall whenever temperatures cooperate. Fall sealing before the winter freeze-thaw season begins is ideal for NB driveways and patios. Spring sealing after a thorough cleaning is a close second.

For new concrete, choose a **silane/siloxane penetrating sealer** rather than an acrylic or film-forming sealer. Penetrating sealers work within the concrete matrix and won't peel or flake in freeze-thaw conditions. Acrylic sealers applied to fresh concrete can trap moisture and are prone to surface failure in NB winters — they require annual reapplication and aren't well-suited to high-traffic exterior surfaces in the Maritime climate.

Sealing a new NB driveway or patio is not optional — it is the difference between a surface that lasts 30 years and one that begins showing wear within 5-7 years. Get matched with a local concrete professional through New Brunswick Concrete if you'd like help choosing the right product or having the sealing done professionally.

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