OTTAWA INSULATION CONTRACTORS

Spray Foam

Open-cell and closed-cell spray foam, the CAN/ULC-S705.2 standard the Code names, covering foam, hot roofs and re-entry

5 Expert Answers from R-Value IQ

ottawainsulationcontractors.ca/construction-brain

Table of Contents

1. Closed-cell spray foam in an Ottawa wall: R-value per inch?
2. When can my family go back in after spray foam in Orleans?
3. Can I spray foam under the roof deck of my Kanata house?
4. What standard does Ontario's Code name for spray foam installation?
5. Does spray foam in an Ottawa basement need to be covered with drywall?

Q1

Closed-cell spray foam in an Ottawa wall: R-value per inch?

Closed-cell polyurethane spray foam carries a Natural Resources Canada design value of R-6 per inch. That is the figure to use when comparing thicknesses or checking whether a target R-value can be reached in a given wall cavity.

Natural Resources Canada notes that products in the same class vary, and that any long-term R-value claimed above about R-6.5 per inch may not be substantiated. If a contractor's quote or product sheet shows a higher number, ask for the supporting data.

For a new house or addition, the Code's energy standard for housing, SB-12, sets above-grade wall minimums for Zone 1 (Ottawa's climate zone under SB-12). Package A1, for a gas furnace or boiler of at least 92% efficiency, requires R-22 for above-grade walls in a new house or addition. Other packages allow R-19 plus R-5 continuous insulation, R-14 plus R-7.5 continuous insulation, or R-22 plus R-5 continuous insulation. Those values are for new houses and additions only. We found no Code number that sets an R-value for adding insulation to an existing wall.

Ontario's Building Code, at 9.25.2.5.(1), states that spray-applied polyurethane insulation shall be installed in accordance with CAN/ULC-S705.2. That standard sets installer requirements, so ask for proof that the person doing the work meets it.

One more thing worth knowing: the Code's note on 9.25.2.4.(3) says that adding insulation to existing wood-frame walls increases the likelihood of damage to framing and cladding from moisture accumulation, and it points to sealing openings, applying a low-permeability paint to the inside surface, and checking siding, flashing and caulking before the work begins. Ask the contractor what they will do about each of those before the wall is opened.

When you have two written quotes in front of you, line up the material named, the total area being sprayed, the finished thickness in the cavity, and the resulting R-value, so you are comparing the same scope of work rather than two different numbers on a page.

Q2

When can my family go back in after spray foam in Orleans?

We found no re-entry time in any source we can quote, so the answer has to come from the contractor who does your job, in writing.

Health Canada says that if a professional does the work, you should follow the contractor's instructions on when to leave the area and how to keep it ventilated, and for how long. Health Canada also notes that consumer spray foam kits may pose a risk to health and may cause breathing problems and skin sensitivities.

Ontario's Building Code says spray-applied polyurethane insulation must be installed in accordance with CAN/ULC-S705.2. That standard sets installer requirements, so before work begins, ask the contractor for proof that they meet it.

A few things to ask before the crew starts:

- Get the re-entry instructions in writing, including how long windows or doors should stay open and whether mechanical ventilation needs to run.
- Confirm who is responsible for ventilating the space and what that involves on your end.

Foam plastics that form part of a wall or ceiling are required by the Code to be protected from the rest of the building by an interior finish such as drywall, or another thermal barrier the Code accepts. Ask your contractor how the foam will be covered, and whether that affects when the space is ready to use.
Ask for the instructions for the whole house as well as the room being sprayed, and ask how you will know the area is ready to use. Put the re-entry and ventilation instructions in the contract itself, next to the foam type and thickness.

Q3

Can I spray foam under the roof deck of my Kanata house?

For an unvented, spray-foamed roof, Natural Resources Canada advises: do not proceed without approval from your building inspector, and then only use a certified spray foam contractor who is familiar with the process. We found no City of Ottawa page that names this job, so ask the City first. Separately, Ontario's Building Code says spray-applied polyurethane insulation shall be installed in accordance with CAN/ULC-S705.2; ask any contractor for proof that their installation meets that standard.

The Building Code rule on foam plastics is relevant here. Foamed plastics that form part of a wall or ceiling assembly must be protected from the rest of the building by an interior finish, such as drywall or another thermal barrier the Code accepts, except where they face concealed spaces inside attics or roof spaces. How that applies to your specific roof geometry is a question for the City's Building Code Services and your contractor before the job is designed, not after.

For a new house or addition in Kanata, the Code's energy standard for housing, SB-12, sets a minimum of R-60 for a ceiling with an attic space, or R-31 for a ceiling without an attic space, under Package A1. Ask your designer which applies to the roof you are planning. For an existing house being renovated, the Code's Part 11 says the performance of an altered system must be at least equal to what it was before the work; we found no Code number that sets a target R-value for voluntarily upgrading an existing roof assembly.

Published 2025-2026 price pages put closed-cell spray foam at roughly $2.75 to $7.00 per square foot, higher with thickness. We found no two independent published sources for open-cell applied to a roof deck on its own, so no range is given here.

A few things to confirm with any contractor before the job is priced:

- whether the assembly will be closed-cell or open-cell, and what finished thickness and R-value they are proposing
- how the foam will be covered to meet the thermal barrier requirement, and who confirms that detail with the City
- whether the existing attic venting will be sealed or modified, and what the plan is for that
- proof that their installation process meets CAN/ULC-S705.2

Before work starts, get a written contract that names the scope, the material, the target R-value, the total price, and the start and completion dates, so there is no ambiguity about what was agreed.

Q4

What standard does Ontario's Code name for spray foam installation?

Ontario's Building Code names CAN/ULC-S705.2 as the standard for spray-applied polyurethane insulation. The Code's exact words, at clause 9.25.2.5.(1), are: "Spray-applied polyurethane insulation shall be installed in accordance with CAN/ULC-S705.2."

That standard sets installer requirements, so before work begins, ask the contractor for proof that they meet it.

A few other Code points apply to spray foam jobs specifically. Foamed plastics that form part of a wall or ceiling are required to be protected from the rest of the building by an interior finish, such as drywall, or another thermal barrier the Code accepts. There are exceptions for foam facing concealed spaces inside attics, roof spaces, crawl spaces, wall assemblies and ceiling assemblies. Rather than deciding on your own whether your space qualifies, ask the City's Building Code Services and your contractor how the foam will be covered before the quote is finalised.

For an unvented, spray-foamed roof assembly, Natural Resources Canada advises that you do not proceed without approval from your building inspector, and that you use a certified spray foam contractor who is familiar with the process.

On permits: insulation on its own is not named on the City of Ottawa's permit lists, but if the job involves opening walls, altering structure or changing windows, those items are on the City's list. Ask the City's Building Code Services before any walls or the roof are opened.

Health Canada notes that two-chamber consumer spray foam kits may pose a risk to health and may cause breathing problems and skin sensitivities. If a professional does the work, follow the contractor's instructions on when to leave the area and how long to keep it ventilated.

Get the contractor's proof of compliance with CAN/ULC-S705.2, the material type (open-cell or closed-cell), the target thickness and R-value, how the foam will be covered, and the permit question in writing before you sign.

Q5

Does spray foam in an Ottawa basement need to be covered with drywall?

Ontario's Building Code addresses foam plastic and interior finishes in section 9.10.17.10. The rule is that foamed plastics forming part of a wall or ceiling must be protected from the rest of the building by an interior finish, such as drywall, or another thermal barrier the Code accepts.

There is an exception. Foam plastics are not required to have that protective finish where they face concealed spaces inside attics or roof spaces, crawl spaces, wall assemblies and ceiling assemblies. Whether your basement situation falls within that exception depends on how the foam is applied and what the finished space looks like, and that is a question for the City of Ottawa's Building Code Services and your contractor before the work starts.

The question to settle for your basement is whether the foam will face the room or a concealed space. This site cannot make that call for a specific basement; ask the City.

A few things worth confirming with your contractor before work begins:

- Which surfaces are being foamed, and which will remain visible after the job is done.
- What interior finish, if any, the contractor plans to install over the foam, and what Code provision they are relying on.
- Whether the City requires a permit for any part of the project, including any wall framing that goes in to support the finish.
- Proof that the installer meets CAN/ULC-S705.2, the standard Ontario's Building Code names for spray-applied polyurethane insulation.

On that point, section 9.25.2.5.(1) of the Code states: "Spray-applied polyurethane insulation shall be installed in accordance with CAN/ULC-S705.2." That standard sets installer requirements, so ask for documentation before the crew arrives.

The most useful question to put to any contractor quoting this job: which specific Code provision are you relying on to leave the foam uncovered, and have you confirmed that interpretation with the City?

Disclaimer: This guide is provided for informational purposes only by Ottawa Insulation Contractors. It does not constitute professional advice. Always consult qualified contractors and your local building authority (the City of Ottawa) before starting any insulation project. Insulation on its own is not named on the City's permit lists, but work that comes with it can need a permit, so ask the City first. Information is current as of November 15, 2026 and may change. Visit **ottawainsulationcontractors.ca** for the latest answers.