

Liva Mirabel: Achieves Comfort and Energy Savings with the Ultimate Building Envelope

Mirabel, Quebec

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MODERN RESIDENTIAL SENIORS' COMPLEX ADDRESSES DESIGN ELEMENTS WITH SPECIAL D-MAX SPRAY FOAM INSULATION ASSEMBLY TECHNIQUE

In Mirabel, Quebec, Groupe Sélection has recently completed a modern residential apartment complex for active retirees, known as Liva Mirabel. This gorgeous complex features 348 apartments of differing sizes, with numerous smart devices allowing residents to control the lighting and temperature of their dwellings with a simple touch screen. Groupe Sélection worked with YHS Architecte to create a beautiful, and more importantly, comfortable residence for those looking to enjoy their retirement.

As Groupe Sélection owns the Liva project, they wanted to achieve the ultimate building envelope to ensure their investment went as far as possible and their customers enjoyed the most comfortable living situation that could be achieved while lower energy consumption. Fortunately, Groupe Sélection's general contractor Groupe Lokia had worked with Huntsman Building Solutions (HBS) in the past, so they were quick to recommend Huntsman Building Solutions' D-Max all assembly

and Heatlok Soya HFO closed-cell spray foam insulation. Both would prove to be incredibly valuable to Groupe Sélection as they worked through this project, with the highest-quality building envelope being accomplished along with cost and time savings.

"The harsh Canadian climate is always a challenge for projects like this, but the presence of Huntsman Building Solutions at every stage of Liva Mirabel's timeline put everyone's worries to rest. Other manufacturers are never as involved as HBS, and that's why we chose to work with them again. The D-Max Wall assembly system saves us many, many headaches since we could achieve continuous insulation requirements while applying the insulation from the interior of the building and meet building codes quickly. All in all, the product took just 85 days to install," said the project General Contractor.

Challenge

A key challenge that the architects and general contractors were faced with was the climate. Mirabel, a suburb of Montreal located on the North Shore, is no stranger to cold, snow, and rain throughout the year, which can cause delays and failures to meet building codes at specific times during a project's lifetime. Since traditional insulation methods need to be applied externally, forecasted rain and snow can delay installation for days at a time, incurring extra costs and complications.

The specification process can also take time, as a perfect building envelope requires thermal insulation, water resistance, mold resistance, and air and vapour barriers. Meeting with multiple manufacturers and researching several different products requiring different installers and contractors racks up time and costs before



CHALLENGE	SOLUTION	RESULTS
<p>Groupe Sélection needed to complete this project quickly, and they also needed to work through Quebec’s harsh winter climate without being slowed down by the presence of rain or snow. They also needed to create a comfortable living environment and lower energy consumption for their retiree residents and be considerate of reducing the carbon emissions of the complex.</p>	<p>HBS worked closely with Groupe Sélection, their architects at YHS Architecte, and their general contractor Groupe Lokia to address concerns and design elements at every step of the process. Heatlok Soya HFO spray foam insulation, in combination with HBS’ D-Max Wall assembly technique allowed Groupe Sélection to insulate their structure from the inside, making weather and climate a non-factor while also providing a perfect building envelope for residents.</p>	<p>Groupe Sélection and HBS built upon their collaborative history to deliver the perfect building envelope using the D-Max Wall assembly technique in combination with Heatlok Soya HFO spray foam insulation. This saved time and money during the specification phase, and greatly simplified and expedited the installation process, allowing Groupe Sélection to meet building codes faster, and deliver a high-quality residence to their customers sooner.</p>

construction even begins, and questions which come up during the design process can delay decisions or cause building plans to be reconsidered or redrawn.

“The benefit of using Heatlok Soya HFO spray foam insulation is twofold in regard to the challenges facing most projects, as it offers the capabilities of multiple products in one, functioning as water and mold resistant insulation, with air and vapour barrier properties,” says Maxime Duzyk, Global Director, Building Science and Engineering with Huntsman Building Solutions. “This means it can greatly simplify the spec’ing process, fulfilling the many needs of a building envelope all by itself.”

Additionally, Huntsman Building Solutions extends their commitment to excellence beyond the scope of most manufacturers, by actively involving themselves in projects and providing site inspection and reviewing the thickness of insulation needed for the client’s building plans.

Analysis of Alternatives

For this project, HFO-blown spray foam insulation outperformed all alternatives, such as fiberglass or

mineral wool insulation, due to its comparatively higher R-value per inch and its much lower Global Warming Potential (GWP). With Canada aiming to reach net zero emissions by 2050, making intelligent decisions now is essential. Heatlok Soya HFO offers a product-specific Environmental Product Declaration (EPD), a rare sight seeing as most products are backed by industry average EPDs. Through this EPD, Heatlok Soya HFO is shown to possess a GWP 39% lower than the industry average for HFO spray foam, up to 96% lower than HFO extruded polystyrene, and 77% lower than high density mineral wool. Designing and spec’ing buildings for the future is not just about reducing carbon emissions during construction, but also for the lifetime of the building, and in its actual day-to-day use. For Liva Mirabel, this translates to lowered energy usage by residents, as they enjoy more efficiently insulated dwellings, leading to reduced operational carbon emissions for decades to come.

“We weren’t just looking for a product that would accelerate our project’s timeline, but one we could feel proud of including in Liva Mirabel that represents our commitment to a greener Canada.

Huntsman Building Solutions was with us every step of the way, and we know their product will keep the residents of Liva Mirabel comfortable in the years to come, as well as contributing to a smaller ecological footprint,” said the project General Contractor.

Solution

Heatlok Soya HFO spray foam insulation was installed by contractor Isolation Algon 2000 Inc., and the versatile nature of the product meant the process was a breeze, accelerating the overall timeline of the project despite the weather conditions of the location. The D-Max Wall assembly meant Isolation Algon 2000 Inc. could proceed uninterrupted, with the only challenge being the presence of double/steel studs around window and door frames. This was solved by punching holes through the studs and injecting spray foam to create a completely sealed building envelope. Since Heatlok Soya HFO perfectly adheres to the substrate, this small workaround garnered excellent results and will contribute to a more comfortable and energy efficient residence for decades to come.

Implementation

The decision to use Heatlok Soya HFO spray foam insulation for Liva Mirabel resulted in an accelerated project timeline, and greatly simplified the specification process. Huntsman Building Solutions involvement at every stage meant questions were addressed quickly, and their expertise was offered early on, to perform site inspections and examine insulation thickness and building plans. The experience of the developer, architect, and general contractor was just as comfortable as Liva Mirabel will eventually be for its residents, and Groupe Sélection can be proud that

they have designed and built an ecologically conscious complex that will set an example for future developments in Mirabel and across Canada. The choice of Heatlok Soya HFO spray foam means residents of Liva Mirabel will experience the unparalleled comfort of a perfected building envelope, along with lowered monthly bills for electricity and heating.

“Working with Huntsman Building Solutions again just reminded us that there really is no better choice than spray foam insulation for projects like this. A product that solves so many problems, and a company that is always ready to help is a fantastic combo, and one that helped make Liva Mirabel what it is today,” said the project General Contractor.

*Learn more about Liva Mirabel project:
habiterliva.com/en/liva-mirabel/projet/*

