

A “Warm” Homeowner Reception for New Elastochem Wall System Using Honeywell Solstice® Liquid Blowing Agent

“I’d like to make this older home more energy efficient. The reason for choosing spray foam was our very cold, drafty garage, which was especially noticeable this past winter.”

Ryan Murdoch - homeowner

The Challenge:

For homeowner Ryan Murdoch and his family, the rooms adjacent to their garage were often cold and drafty, making their home uncomfortable and driving up energy costs. Built in the 1970’s, this Burlington, Ontario home had fiberglass insulation in the garage walls that was proving inadequate, especially during the cold winter months.

The Solution:

A new closed-cell spray polyurethane foam (ccSPF) wall insulation system developed by Elastochem Specialty Chemicals, Inc., formulated with Honeywell Solstice® Liquid Blowing Agent (LBA).

On June 23, 2014, this residential home marked an important milestone for Elastochem and Honeywell by being the first installation of ccSPF wall insulation formulated with Solstice LBA in Canada. “One of the primary reasons which drew us to develop a wall system with Solstice LBA is that as a company, Elastochem always wants to be progressive in its chemistry and as environmentally sustainable as possible,” said John Volk, general manager, Elastochem. “We believe that Solstice LBA helps us with that approach.”

Volk explained that for this project, the interior walls of the garage were stripped down to the studs. Once the drywall and old fiberglass insulation were removed, the stud cavities were sprayed with the new ccSPF wall insulation formulated with Solstice LBA. Because this was the first



installation of Elastochem’s new Insulthane® Extreme ccSPF system, the project was used to assess how the system performed in the field and to fine tune application parameters.

New ccSPF Wall System Exceeded Expectations with Improved Foam Performance and Environmental Benefits

For the ccSPF installation, Elastochem worked closely with FOAMIT, an experienced Toronto-based contractor in residential, commercial and industrial spray foam application. FOAMIT’s Muhammed Alibashev, who sprayed the foam in the garage, was impressed with the new system. “I’ve personally sprayed more than one million board feet of closed-cell spray foam a year and also sprayed over a dozen different types of closed-cell foam in Canada,” said Alibashev. “Everything went very smoothly. It stuck on the wall really well. It was easy on my equipment and I didn’t even have to drill out the spray gun at all. It was also very forgiving with my spray patterns and when you have good patterns, you get really good yields.”

Marc Kast, director of sales and marketing, Elastochem, concurred with Alibashev’s assessment. “The foam rose nicely and gave us a smooth, uniform surface. It was easy to apply. There was no plugging of the spray gun and the operator really liked the way it worked.” Kast added that Elastochem has always strived to reduce the environmental impact of its products and “Solstice LBA, with zero ozone depletion potential (ODP) and very low global warming potential (GWP) is the best blowing agent available.”

Mary Bogdan, senior principal scientist, Honeywell Fluorine Products, commented, “We are very pleased with how well the foam went on the walls. We demonstrated it can be applied seamlessly with existing equipment and

fine-tuned to the best processing conditions. Not only is Solstice LBA an exceptional blowing agent from a performance and environmental standpoint, it improves the energy efficiency of the structure substantially – so the homeowners get more bang for the buck.”

A Constant Focus on Safety

In preparing for the home's ccSPF installation, all safety measures were reviewed and followed. During the actual spraying of the foam and for a period following the installation, the homeowners were not present. In accordance with safety requirements, the spray foam applicator and helper wore appropriate personal protective equipment (PPE), including full-face supplied air respirators, gloves and protective clothing.

Solstice LBA is Commercially Available

With a new manufacturing facility that started up in May 2014, Solstice LBA is an ideal replacement for HFC-365mfc and other HFC blowing agents because of these key advantages:

- Ultra-low global warming potential (GWP) of 1 (compared to a GWP of 782 for 365mfc)
- A slightly lower molecular weight so less material can be used in a system
- A higher boiling point and lower vapor pressure, which improves handling and yields smoother foam surfaces
- Improved thermal performance

In addition, Solstice LBA is:

- Nonflammable (ASTM E-681)
- Listed under the U.S. EPA's Significant New Alternatives Policy (SNAP) program to replace ozone depleting substances
- Listed on the TSCA inventory
- Not a volatile organic compound (VOC) as determined by the U.S. EPA

Solstice LBA – A Competitive Edge

By working with Honeywell to develop an advanced ccSPF wall system formulated with Solstice LBA, Volk believes this new product will make a strong contribution to Elastochem's future success. In keeping with that positive outlook, Elastochem has expanded its location in Brantford, Ontario with a new production facility. Mary Bogdan said, “The development of this new ccSPF wall system represents a lot of time and effort by both parties. Today's installation is the start of something very exciting for Elastochem. Honeywell is proud to be part of it.”

Contact Honeywell to Learn More

To learn more about the benefits of Solstice LBA in new residential construction or retrofits, call Honeywell at 1-800-631-8138 or visit www.honeywell-blowingagents.com



Before



After

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