



Micro-Flex® comes up big for oversized piping

When the building you're working in is roughly 3 million square feet, you can bet you're going to need a lot of material to insulate the piping.

You'll also want products that are dependable, easy to work with and that look great when finished.

Enter JM's Micro-Flex® and Micro-Lok® HP Ultra. Those are some of the products Bondy Insulation, out of Sterling Heights, Michigan, is using in Ultium Cells battery plant projects in Ohio, Tennessee and Michigan. The battery plants are a joint venture between General Motors and LG to build batteries for electric vehicles across the GM portfolio.

The crew from Bondy is working to insulate a variety of plumbing and HVAC systems. While it's "pretty standard commercial stuff" as Brad Becker, VP of Sales and Marketing, explained, "there is a lot of it in a place this size."

Not only is there a lot of footage of pipe to insulate, but some of the sizes are also very large. The chilled water system has pipes up to 42" in diameter, which is where the Micro-Flex has come into play. Micro-Flex is a large diameter pipe and tank wrap, perfect for jobs where pipes are too large for pre-formed insulation. Made from a high-temperature, semi-rigid fiberglass blanket bonded to a flexible facing, Micro-Flex rolls can be cut to size for a specific project. Both Micro-Flex with AP and FSK facings were utilized for indoor (AP) and outdoor (FSK) applications.

Although Bondy often works with JM insulation including Micro-Lok HP Ultra, Becker said prior to this project, they didn't have much experience with Micro-Flex, instead using segmented pipe and tank insulation. Becker has been pleased with Micro-Flex's results.

PRODUCT

Micro-Flex® Pipe and Tank Wrap

CONTRACTOR

Bondy Insulation

LOCATION

Ultium Cells Battery Plant
Spring Hill, Tennessee



“Previously, we’d used pipe and tank, but it can be inconsistent, and it isn’t always well adhered to the backing (ASJ facing),” Becker said. “The Micro-Flex has been a really consistent material with great jacket adhesion. It’s been easy to work with, and it looks great. This is definitely a worthwhile product, and we’d like to see more of it.”

For the smaller, more typically sized pipes up to 24”, Bondy used Micro-Lok HP Ultra. This pre-formed product is a high-performance pipe insulation with a polypropylenecoated factory-applied vapor-barrier jacket and is a popular choice to insulate standard iron pipe, plastic pipe and copper tubing.

They’ve been installing Micro-Flex with ASJ, being sure to use ASJ tape so that it matches the Micro-Flex for a beautiful finish. In places Bondy has used the HP Ultra, they are using that matching tape so that everything has a uniform finish. The ASJ finish is inside, exposed to view. Outside, Bondy is using an FSK facing that will be clad with aluminum jacketing.

“This is a new building, new technology, and it’s full of insulation,” Becker said. “It’s a large building with a density of insulated systems unlike other manufacturing facilities.”

Speaking about the second facility, U2, located in Springhill, Tennessee, Becker said there are two floors in the building and its sheer size means it can take a couple of hours to walk the entire jobsite. The U2 project began in Q2 of 2022 and will be completed in Q1 of 2024. The U1 facility started a year prior, and while it’s still being finished up, battery production is underway at the building simultaneously. Construction of the U3 location in Lansing, Michigan, is also currently underway.

Within each plant there are all sorts of water applications, from non-potable water to domestic hot and cold water, a variety of drains, and HVAC air systems, all “on just a really large scale,” Becker said.

To manufacture the electric vehicle batteries, the conditions in the building must be very controlled regarding humidity, temperature and cleanliness. Some of the spaces within the buildings are clean rooms, so insulation in those spaces must be 100% covered with PVC jacketing and sealed.

Bondy’s favorable experience using Micro-Flex so far is no surprise to Becker. He said he expected Micro-Flex to be high quality and simple to use just like other JM products, noting that the company uses JM products often.

“A lot of that is just consistency in the material. You know what you’re going to get,” Becker said.

ABOUT BONDY INSULATION

Bondy Insulation is a union industrial and commercial mechanical insulation contractor. Based in Sterling Heights, Michigan, with branches in three other states, Bondy was founded in 1992 and works on projects throughout the country, with a primary focus on the Midwest region. Bondy Insulation is a subsidiary of The Macomb Group.

