

Dow Corning® 123 Silicone Seal stops leaks at Pittsburgh's premier condominiums.

Trimont Condominiums, Pittsburgh, Pennsylvania, USA



Since opening in 1985, the 25-story Trimont, with its luxury condominiums, panoramic windows and stunning view of the city, has been “the place to live” in Pittsburgh.

But around 2006, residents began complaining about water on the walls around the window frame members and balcony doors. According to Building Manager Donna Gritzan, “We would repair the leaks as they happened. Then we realized we were being called back three and four times to the same units.”

It was time to stop chasing the problem and find a lasting solution.

The root of the problem

“Because Astorino was the original architect and had the original drawings and material specifications, the condominium association asked us to review the situation and make recommendations,” said Ron Dellaria, president of Astorino Development and chief compliance officer of Astorino.

The Trimont was the largest poured-in-place colored concrete structure of its time. There was concern that the concrete, which contained fly ash, might have begun to break down. To get to the root of the problem, Astorino conducted forensic water testing on the concrete, glass and metal. The results? The concrete was fine. It was the sealants around the windows and doors that had deteriorated.

Dellaria said, “Typically, 90 percent of building infiltration problems occur in that 1 percent of the building where materials come together. I don’t have to tell you how much we hate to have call-backs on a job. Nothing’s worse. No matter how much care you devote to a building’s design, it’s that single drop of water that leaves a negative impression on the client.”

The search for a lasting fix

In search of a lasting solution, Astorino called in *Dow Corning*® brand product distributor Tom Brown, Inc.

“We have a long history of success with *Dow Corning* brand,” said Dellaria. “In fact, *Dow Corning*® products are listed for five out of seven categories in the Astorino Master Spec for Joint Sealants.”

Under the guidance of Dow Corning’s construction industry experts, Tom Brown, Inc., Owner Kenny Brown and Sales Representative Jim Ziesche recommended bonding ***Dow Corning*® 123 Silicone Seal over the failed joints using *Dow Corning*® 795 Silicone Building Sealant as the adhesive.** By eliminating the sealant removal step, the *Dow Corning* 123 Silicone Seal solution offers a fast, efficient way to reseal over failed weatherseals.

Project

Dow Corning® 123 Silicone Seal stops recurring water leaks at the premier condominium complex in Pittsburgh, Pennsylvania.

Products

Dow Corning® 123 Silicone Seal

Dow Corning® 795 Silicone Building Sealant

Key Participants

LDA-L.D. Astorino Companies – Architect

Trimont Residential Condominium Association – Building Owner

Airtite Caulking Co. – Weatherproofing Contractor

Tom Brown, Inc. – *Dow Corning*® Product Distributor

Once bonded, *Dow Corning* 123 Silicone Seal, UV resistant with +200/-75% movement capabilities, results in a weatherseal that can withstand thermal expansion and contraction, shear, and wind sway movements. This was an important consideration in a high-rise building like the Trimont, which is exposed to swirling winds, wind-driven rain and the sun's UV rays.

Application tested and performance proven

To show that *Dow Corning*® materials really were the best choice for this application, weatherproofing contractor Airtite Caulking Co. created a series of on-site mockups using a variety of competitive products. Airtite Project Manager Jeff Stitzel said, "The *Dow Corning* products performed better than any of the other products we tested."



No fuss, no muss ... just happy residents

Using the same procedure developed for the mockups, Airtite cut an angle into the glazing gasket around the windows and applied a cap bead of *Dow Corning* 795 Silicone Building Sealant. They then sealed the metal-to-metal connections between the windows (both vertical and horizontal), as well as the exterior sill where the metal sill hits the concrete, with *Dow Corning* 123 Silicone Seal and *Dow Corning* 795 Silicone Building Sealant.

Brown and Ziesche, serving as *Dow Corning*'s on-site representatives, monitored the entire installation process, offering technical support as needed.

"The materials were very easy to install," Stitzel said. "We didn't need to go to the expense, mess and disruption of cutting out the old sealants. We simply sealed over them."

Dellaria agreed. "Everything fell into place with minimal disturbance to the residents. And all the bad weather we've had proves it's working."

Since the installation of *Dow Corning* 123 Silicone Seal, the Trimont has been subjected to heavy rains and record-breaking snow. But, according to Gritzan, not a single leak.

"Everyone – Astorino, the condominium association and the residents – is ecstatic about how well it's performing," Dellaria said.

The Trimont Condominiums have secured backing for years to come by obtaining a *Dow Corning* VIP Weatherseal Warranty for this project work.

For more information

For more information about the *Dow Corning* products featured in this case study, as well as our many other proven materials for the construction industry, visit dowcorning.com/construction.

How to contact Dow Corning

Dow Corning has sales offices, manufacturing sites and laboratories around the globe. Contact information for locations near you is available at dowcorning.com/ContactUs.

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