



The Tremco retrofit exemplifies our commitment to

People,

Planet and

Prosperity



- 84% reduction in gas usage

- 43% reduction in electric usage

- ≥ 75% landfill avoidance

- Improved employee comfort

Commitment to Sustainability Starts at Home as Tremco Incorporated Transforms 40-Year-Old Headquarters into High-Performance Showcase

Sustainability is at the very core of Tremco's existence. The vast offering of products and systems formulated and tested to ensure superior performance and compatibility are just the start. Understanding that the quality of the entire building enclosure will determine how well a building functions as well as its lifespan, Tremco has committed significant resources to develop superior technology, innovative solutions and integrated systems which achieve **social (people)** and **environmental (planet)** objectives while providing **economic (prosperity)** balance.

While these sustainable solutions are designed to create value through their performance, application efficiencies and life-cycle operational savings, there is no better way to demonstrate our commitment than to put it to the test on our own 40-year-old headquarters. Utilizing products and services from several companies within the RPM family, the Tremco 46,000-square-foot facility was transformed into an energy-efficient, high performance showcase for sustainable design.

With a goal of becoming a LEED Gold certified facility, the renovation includes:

- ❑ **A high-performance façade** with integration and compatibility of all elements comprising the enclosure to eliminate air and moisture infiltration
 - ◆ Kawneer 1600 Wall System 2
 - ◆ Silicone sealants and gaskets for a comprehensive, compatible glazing system from Tremco Commercial
 - ◆ Sealants & Waterproofing
 - ◆ ExoAir® 110 Air & Vapor Barrier transitioning into the window opening
 - ◆ Proglaze® ETA Engineered Transition Assembly for a proven, durable seal at the window-wall interface
 - ◆ Dryvit Outsulation® Plus MD energy-efficient exterior cladding, reducing our carbon footprint with
 - ◆ Tremco's custom matched Spectrem® Silicone Sealant with Advanced Silicone Technology which minimizes dirt pickup
- ❑ **Vegetative and cool roof systems** featuring Tremco roofing materials
- ❑ **A cistern** for water capture from the roof
- ❑ **Renewable energy** including a solar (photovoltaic roofing) array and a wind turbine
- ❑ **Decorative concrete sidewalks** from Increte Systems, a division of The Euclid Chemical Company, supported by gravel recycled from the building's main roof
- ❑ **Mechanical/engineering/plumbing upgrades** for improved HVAC and lighting zone control, energy savings and more
- ❑ **Seamless epoxy flooring** from Stonhard



Key to Creation of High-Performance Building is Integrity of the Building Enclosure



Framing members for the high-performance Kawneer 1600 Wall System arrived at the site with the peroxide EPDM gaskets from Tremco pre-installed.

The Tremco headquarters retrofit demonstrates how building components work in concert, as changes to one component inevitably affect another. It is estimated that the integrity of the building enclosure accounts for 10-15% of a building's energy use because of heat gain and loss. Attention to connectivity and compatibility throughout the façade was critical to reaching corporate objectives.

The sleek-looking, green ribbon window system incorporates concealed fastener joinery for unbroken lines and a smooth, monolithic appearance to create visual impact. Windows are constructed on-site with Tremco components being used in the glazing system to ensure compatibility and long-term performance – Spectrem 2 Silicone Sealant for the metal-to-metal connections and structural tensile bead, spacer gaskets of SCR-900 and pressure bar gaskets of peroxide EPDM.



The metal and ExoAir 110 surfaces were cleaned in preparation for the engineered transition assembly which provides a durable and secure seal from the window assembly to the wall assembly. Tremco's Spectrem® 1 Silicone Sealant was applied to the metal race at the sill.

Controlling air and moisture infiltration is of primary importance to achieve sustainability so ExoAir 110LT Self-Adhered Air & Vapor Barrier Membrane is used around the rough openings before the windows are set.



Tremco's proprietary Proglaze® ETA Engineered Transition Assembly System 3 ribbed silicone sheet was plugged into the mullion race at the sill and at the head and sealed in place with Spectrem 1 silicone sealant.

Proglaze ETA Engineered Transition Assembly sealed with Spectrem 1 Silicone Sealant is used to make the connection from the window system to the building façade for a secure, proven seal. The ribs on the translucent silicone sheet ensure that when the sealant is rolled out there is a secure adhesive bond between the ExoAir and the silicone sheet that is visible and consistent throughout, eliminating the potential for gaps commonly found at these connections and helping to ensure thermal performance, energy efficiency and indoor air quality.

While reaching LEED Gold certification is a noteworthy milestone, the demonstration of Tremco's commitment to sustainability is manifestation of our vision. It is enabling all of Tremco to be a part of and to "live" our vision. From the technologies that we are developing and the solutions that we are promoting to the processes that we are utilizing to produce our products and the way we operate within our facilities and our communities, we are committed to sustainability.



Tremco setting blocks were positioned at the sill of the window to support the weight of the energy-efficient insulating glass unit and provide the correct glass "bite" or depth within the assembly for a comprehensive, compatible system designed for long-term performance.



A vertical weather bead of Tremco's Spectrem 2 Silicone Sealant was applied between the glass units, creating the look of a continuous ribbon of glass and a comprehensive, compatible, weathertight façade assembly ready for the installation of the Dryvit Outsulation MD exterior cladding.



To make sure that nothing would mar the appearance of the sleek and attractive façade over time, Spectrem 4-TS Silicone Sealant formulated with Tremco's patented Advanced Silicone Technology was used to provide a perfect match to the EIFS. Its superior performance enhances the life and durability of the cladding system, protects against dirt pickup and minimizes maintenance.