



Exterior façade (corner view)

Using structural aluminum fenestration materials with polyurethane polymer thermal barriers optimize energy savings in commercial buildings to increase comfort and lower operational costs.

Location: Minneapolis, MN
Type: Commercial office and event space
Architect:
 RSP Architects - Minneapolis, MN
General contractor:
 JE Dunn Construction - Minneapolis, MN
Glazing contractor:
 Brin Contract Glazing - Minneapolis, MN
Product used:
 Tubelite, Inc. - Walker, MI
 TU2400, dual-pocket storefront system
 400TU Therml=Block® screw spline curtainwall
AZON Technology/Machinery:



Exterior façade (front of building)

Baker Center - Makeover Magic in Minneapolis

Located in downtown Minneapolis, which averages 53-in. of snowfall per year— double the snowfall of the rest of the country—the historic Baker Center offers more than a million sq. ft. of mixed retail and office space. The historic structure is actually a composite of four Art Deco buildings, and the challenge was pulling them all together with a single façade that would not only look sleek, but be thermally efficient against tough northern winters.

Three of center's the original buildings—the Baker Building, the Roanoke Building and the Investors Building—were built in the 1920s. The fourth piece of the complex—the 730 Building—was constructed in 1968. Further complicating matters was that there were no original architectural drawings, and different construction techniques were used during the various retrofits and remodeling of each building over the past several decades.

The curtain wall and storefront framing are ideal for both cold and warm conditions providing high energy efficiency and condensation resistance. The Baker Center exterior curtainwall and storefront is glazed with Vitro's low-E, 1-in. Solarban 60 coating; the low-iron glass includes warm edge spacers and argon filling to provide further thermal performance when the weather and temperatures are extremely cold.

The action plan

To reflect the updated look and performance for this property, Brin Contract Glazing's team worked closely with the architect, construction manager Hightower Initiatives, general contractor JE Dunn and Tubelite to install the curtainwall. "It was a logistically challenging project," admits Scott Ide, Brin Contract Glazing.

An essential design element in the Baker Center's renovation is the dramatic corner constructed using Tubelite's 400TU Therml=Block® Screw Spline Curtainwall, vertically butt-glazed with horizontal covers. Ide notes, "A massive amount of steel was added to properly anchor the curtainwall. It's the main feature of the building from the fourth to the top floor."

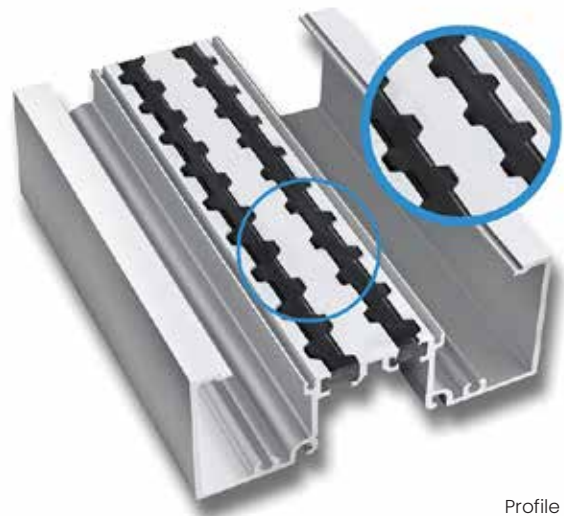
"In colder climates, Therml=Block products provide superior energy and condensation resistance performance using multiple thermal barriers, while providing structural integrity and aesthetic flexibility," explains Mary Avery, vice president of Marketing at Tubelite. "Optimizing thermal performance helps lower the load on HVAC systems and reduces associated energy costs, while maintaining a comfortable interior temperature," says Avery, adding the reduction of condensation can improve a building's appearance and minimize moisture damage to adjacent building materials.



The fenestration products

The main entrance space showcases a 60-ft.-long media wall and open staircase on the inside, and on the exterior, an equally sleek glass lobby highlighted by storefront system that includes an energy-saving thermal barrier.

The latter is pour and debridge thermal barrier technology by AZON, which when added within Tubelite's TU24000 Dual Pocket Storefront system, helps deliver the thermal performance required. The storefront system is prominently featured on the lower level, as well as for the upper story windows. The building's dramatic corner design, from the fourth floor to the top floor, is comprised of Tubelite's 400TU curtainwall system.



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