



## CASE STUDY

### **TECHNOFORM GLASS INSULATION PARTNERS WITH INSULITE GLASS COMPANY TO SPECIFY TGI<sup>®</sup>-SPACER AT UNIVERSITY OF CENTRAL MISSOURI**

***UNIQUE HYBRID DESIGN DELIVERS MAXIMUM PERFORMANCE AND COMFORT –  
FOR MINIMUM ENERGY COSTS***

#### EXECUTIVE SUMMARY

Multi-story exterior glazing at the University of Central Missouri's new Student Recreation and Wellness Center makes a bold design statement – yet poses a serious challenge to the building's energy efficiency. So when the project's architect sought a spacer that provided unrivaled thermal efficiency, performance and aesthetic appeal, he insisted on TGI-Spacer from Technoform Glass Insulation. TGI-Spacer met the architect's stringent criteria for a high performance spacer by delivering maximum occupant comfort, the highest energy efficiency possible and major operational cost-savings to the Center.



#### SITUATION ANALYSIS

The University of Central Missouri (formerly Central Missouri State University) is a four-year public institution located in Warrensburg, Missouri, about 50 miles southeast of Kansas City, Missouri. The University currently serves more than 11,000 undergraduate and graduate students.



In 2008, University officials unveiled plans to construct a new 69,000 square-foot Student Recreation and Wellness Center on the east side of an existing complex of campus buildings. When it is completed in the spring of 2011, the two-story facility will include a fitness area, weight room, basketball courts, indoor track and a multi-purpose area.

The facility's design is highlighted by multi-story walls of glass that dramatically unite indoor spaces with the natural environment outside. Given the large amount of glass used in this project, and the wide variations in temperature that occur throughout the year in Warrensburg, it was critical to specify the most thermally and structurally efficient window frames and glazing systems available. And that meant incorporating a high performance insulating glass (IG) spacer that delivers outstanding thermal performance, a high degree of structural rigidity, superior gas retention, condensation resistance and other key performance benefits.



## CUSTOMER CHALLENGE: MEET THE ARCHITECT'S DEMANDING CRITERIA FOR WARM EDGE SPACER PERFORMANCE

The project's original architectural glass manufacturer was charged with providing 400 finished window units for the Center, and that company insisted on integrating a traditional stainless steel IG spacer into its finished window units. However, project architects at Kansas City, Missouri-based Gould Evans were not satisfied with the



previously-specified stainless steel spacer. Gould Evans' Associate Vice President Dan Zeller, AIA, had called on TGI-Spacer, with its hybrid polymer and structural stainless steel design, for several past projects. Zeller viewed TGI-Spacer as an essential component in the drive to maximize the holistic performance of the Center's large glass walls.

"We've done everything we can to enhance the thermal and structural properties of the glass in this project. To do that, we needed to specify the highest-performing glass and glass components available, and TGI-Spacer helped get us where we need to be," Zeller said in recalling the decision to specify TGI-Spacer. "It's a better performing spacer

system than stainless steel, and it doesn't transfer as much energy through a window system. This project incorporates a lot of glass, so the components we use to improve the edge performance of a window will make a real difference."

Eventually, Insulite Glass Company, Inc. ("Insulite") was retained to provide architectural glass for the Center. Based in Olathe, Kansas, Insulite is a recognized industry leader in automated architectural flat glass fabrication. Its fenestration products include insulating glass, tempered glass, heat strengthened glass, reflective glass, low-e glass, spandrel glass, laminated glass, firelite and tempered glass doors and entrance systems.

Larry Vasholz, Insulite's Director of Sales, had specified Technoform Glass Insulation's TGI-Spacer in past Insulite products. As Technoform Glass Insulation Sales Engineer Chris Mcaughey recalled, "Larry had worked with our company before and understood the benefits that TGI-Spacer offers. At the outset of this project, we ran a series of simulations that compared TGI-Spacer's performance to that of competing products. This validated Insulite's confidence in our company and our product. We also offered the expertise needed to help Insulite integrate TGI-Spacer into the finished designs, which Larry really appreciated."

### **KNOW-HOW ... AT NO CHARGE**

Technoform Glass Insulation offers a comprehensive global network of industry specialists who can help you integrate TGI-Spacer cost-effectively into your operation and meet any structural specification – all at no additional cost to you.

- Product concept and design
- Thermal simulation and testing support by certified staff
- Product layout and equipment specification
- Start-up assistance
- Quality control



## INSULITE CONSULTS WITH TECHNOFORM GLASS INSULATION ON IDEAL SPACER SOLUTION

With its North American headquarters in Twinsburg, Ohio, Technoform Glass Insulation is a global leader in the design, production and distribution of high-performance insulating glass spacers. Founded in 1969, the company holds 120 national and international patent registrations and maintains manufacturing and distribution facilities throughout Europe, Asia and North America.

Technoform Glass Insulation's sales engineers, technical support staff and customer service representatives understand the challenges that

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Larry Vasholz, Insulite Glass Company, Inc.

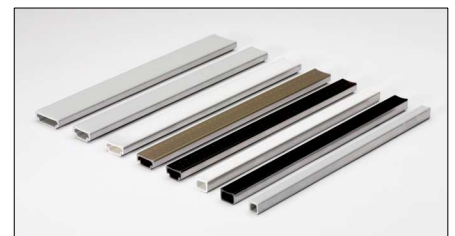
manufacturers face to complete projects on time and on budget. They are knowledgeable, responsive, customer-focused and committed to providing fast turnaround. State-of-the-art manufacturing processes at the company's Twinsburg, ISO9001 : 2008 certified, facility comply with Technoform's worldwide production quality and ensure product quality, order accuracy and on-time completion.



Equally important, Technoform Glass Insulation works closely with customers at the outset of a project to strategize their product development process and effectively integrate TGI-Spacer into their designs. This includes everything from product concept, thermal simulation and testing support, production layout and equipment specification, start-up assistance and establishing and monitoring quality control.

## TGI-SPACER: PERFORMANCE LIKE NO OTHER

TGI-Spacer is a unique hybrid spacer system incorporating high-performance polymer and low conductivity stainless steel to provide minimal heat transfer, and maximum protection against gas leakage and moisture penetration. Thermally efficient building envelopes of today and tomorrow are critical to energy management, and TGI-Spacer's drop-in solution meets or exceeds the toughest industry expectations in all climates.





## THE RESULT: BEST-IN-CLASS PERFORMANCE FOR THE UNIVERSITY OF CENTRAL MISSOURI, MADE POSSIBLE WITH TGI-SPACER

With installation of window units well underway, Vasholz reflected on the holistic performance of TGI-Spacer, and the professional expertise of Mcaughey and others at Technoform Glass Insulation. “The simulations that

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Dan Zeller, AIA, Assistant Vice President, Gould Evans

Technoform Glass Insulation ran showed better warm edge performance compared to competing stainless steel products,” said Vasholz. “TGI-Spacer has really been a plus for us, especially since we haven’t had to do any specialized or expensive retooling for it to work on our existing equipment.”

“We’re very satisfied with TGI-Spacer and the people at Technoform Glass Insulation,” he continued. “We’ve already called on them for help with additional projects, and I definitely would recommend TGI-Spacer to others.”

### **SUMMARIZING THE BENEFITS OF THE TGI-SPACER:**

- WORLD-CLASS THERMAL CAPABILITIES
- STRUCTURAL RIGIDITY
- TRUE DUAL SEAL IG UNIT CONSTRUCTION
- EXCEPTIONAL CONDENSATION RESISTANCE
- SUPERIOR GAS RETENTION
- AESTHETICALLY PLEASING SIGHTLINES AND COLORS
- EXCEPTIONAL LONG-TERM DURABILITY
- WIDE RANGE OF STANDARD WIDTHS PLUS CUSTOMIZED SOLUTIONS

### **FOR MORE INFORMATION**

Call (330) 487-6600, visit [www.technoform.us](http://www.technoform.us) or contact [TGIspacer@technoform.us](mailto:TGIspacer@technoform.us).