Smart cities, smarter glass: FENZI's vision for tomorrow

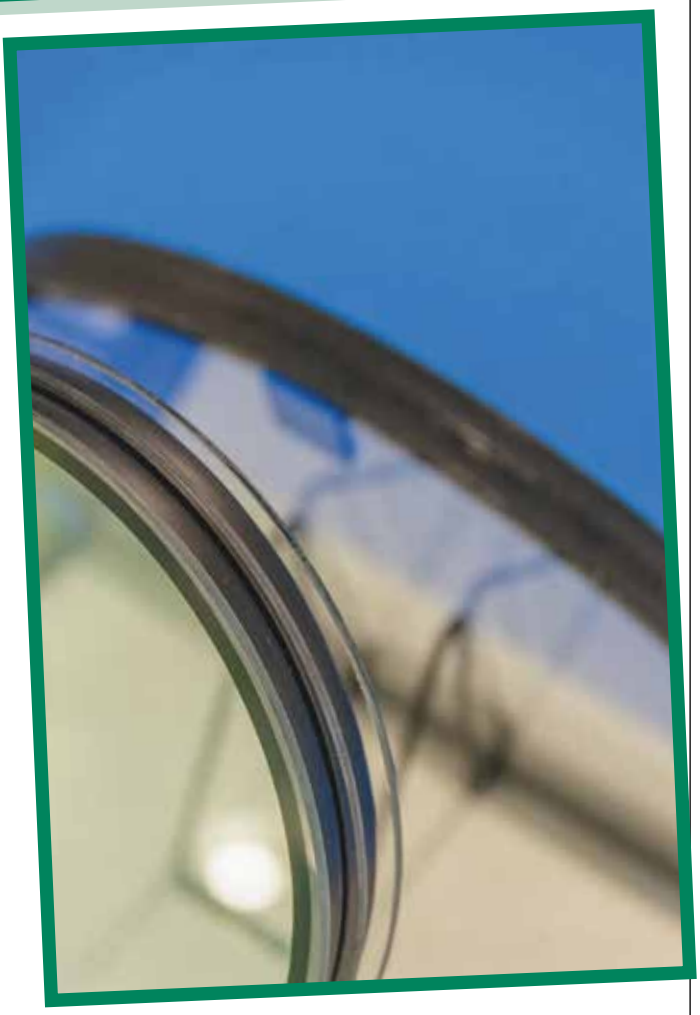
Glass has evolved far beyond its traditional role as a mere building material; it has become one of the principal enablers of the Smart City revolution. In the age of sustainable design and intelligent infrastructure, glass defines the transparency, efficiency and elegance of urban life. From energy-saving façades that regulate light and temperature to glazing systems that interact with their environment, glass now shapes both the form and the function of modern architecture. Standing at the forefront of this transformation is Fenzi, a global benchmark in chemical solutions for the glass industry. With a legacy rooted in research and continuous innovation, Fenzi transforms glass into a high-performance material capable of responding dynamically to the needs of contemporary

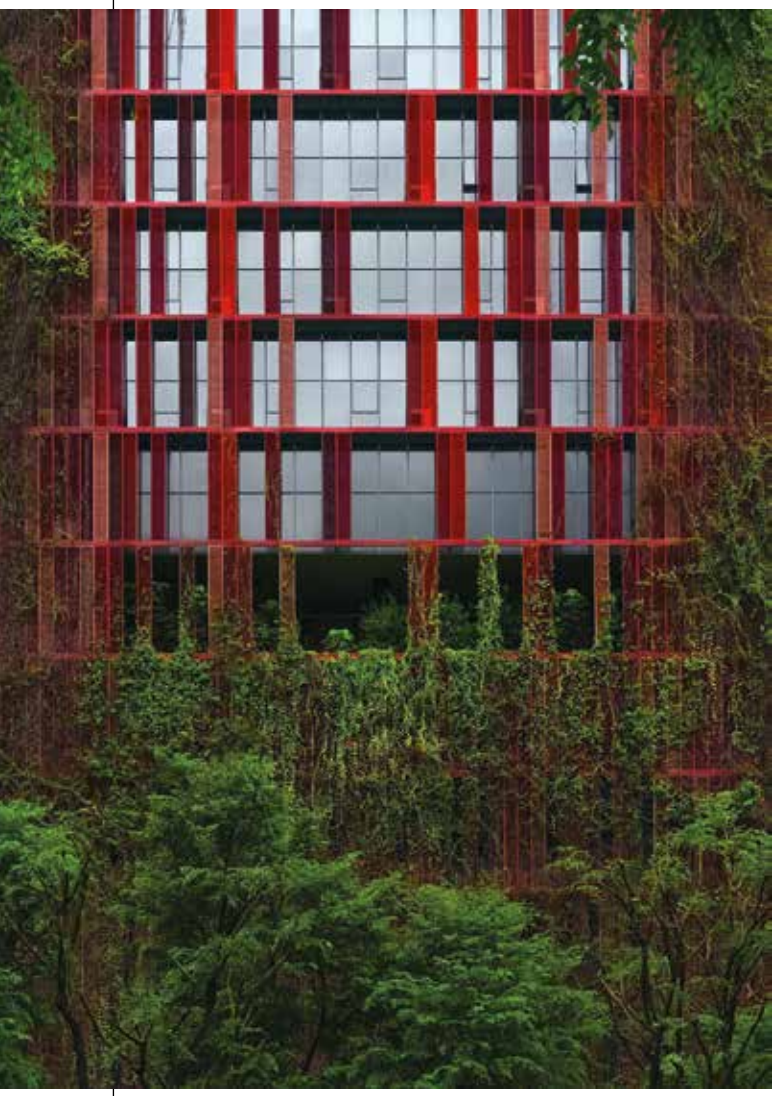
As cities evolve toward sustainability and intelligence, glass emerges as a cornerstone of modern architecture. FENZI leads this transformation with advanced chemical solutions that enhance performance, efficiency and design flexibility - empowering Smart Cities through innovative glazing technologies that redefine how buildings interact with light, energy and the environment.

construction. The company envisions a future in which every pane of glass contributes actively to human comfort, energy savings and ecological balance. Through deep collaboration with leading manufacturers and laboratories worldwide, Fenzi develops technologies that enhance thermal performance, optimise durability and drive the global transition toward greener, smarter cities.

BUILDING EFFICIENCY AND AESTHETIC INTELLIGENCE

As architecture embraces sustainability and digitalisation, the role of glass becomes increasingly sophisticated. It must insulate and illuminate, protect and inspire. Fenzi's comprehensive portfolio of solutions -ranging from high-performance sealants and warm-edge spacers to advanced decorative paints- enables designers and engineers to achieve new levels of efficiency and expression. These technologies minimize heat loss, extend service life and reduce maintenance demands while maintaining flawless visual appeal. In an era when buildings are measured as much by their environmental credentials as by their beauty, glass serves as both a thermal barrier and a design statement. Fenzi's expertise ensures that every component within an insulating glass unit (IGU) operates in perfect harmony, creating high-integrity systems that balance energy control with architectural creativity. Whether for curtain walls, interior partitions





Thermoflex
Warm Edge Spacer

or complex façade geometries, Fenzi provides the tools to unite aesthetics with measurable performance.

ENERGY EFFICIENCY IN IGUS: THE STRATEGIC EDGE OF WARM-EDGE TECHNOLOGY

At the heart of efficient glazing lies warm-edge technology, a field in which Fenzi continues to set international standards. Warm-edge spacers dramatically improve the thermal efficiency of insulating glass units by reducing heat transfer and minimizing condensation at the glass edge - one of the most critical areas for energy loss. Within this domain, Fenzi's Butylver TPS and Thermoflex represent two complementary, flagship innovations engineered to meet diverse production and design challenges.

BUTYLVER TPS: EFFICIENCY THROUGH AUTOMATION

This thermoplastic spacer integrates polyisobutylene and desiccants into a single, high-performance profile. With exceptionally low thermal conductivity, superior gas retention and immediate adhesion, Butylver TPS enables full automation, ensuring precise application, consistent quality, and reduced waste. Certified under EN 1279, ASTM, UNI, RAL 520 and CEKAL standards, it redefines industrial reliability for automated IGU lines worldwide.

THERMOFLEX: FLEXIBILITY FOR CUSTOM DESIGN

Crafted from premium elastomeric silicone foam rubber, Thermoflex combines low conductivity with remarkable adaptability. Free from volatile components, it adheres seamlessly even in curved or unconventional geometries and exhibits outstanding UV and blister resistance. Fully compliant with EN 1279 and ASTM E2190-10, it offers the freedom to realize bespoke architectural concepts without compromising thermal or mechanical integrity. With Butylver TPS and Thermoflex, Fenzi consolidates its position as a pioneer in the evolution of smart, sustainable glazing. As cities strive for carbon neutrality and architectural individuality, Fenzi's smarter glass technologies stand ready to turn tomorrow's vision of intelligent urban living into a clear and luminous reality.

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