



TROSIFOL

CASE STUDY

BRICKELL FLATIRON, MIAMI/USA



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Residents have access to private steam, sauna and locker facilities, in a 585 m² (6,300 square foot) state-of-the-art fitness center.

BRICKELL FLATIRON IS A SMOOTH ADDITION TO MIAMI'S SKYLINE THANKS TO ADVANCED INTERLAYER TECHNOLOGY

SentryGlas® ionoplast interlayer from Trosifol helps deliver strength, clarity, energy efficiency and protection to Miami's Brickell Flatiron, the city's tallest condominium.

Situated in the heart of Downtown Miami's Brickell Financial District, the 224 m (736 ft) 64 story Brickell Flatiron offers an array of luxury residences - to multiple local and international buyers - in what is now the city's tallest condominium.

Residences range from one-to-five bedrooms, with a limited collection of penthouses that include two-story duplex and three-story triplex units. Most of the development's 527 units have already sold, with the remaining residences being available from \$790,000 to \$3 million, and one upper duplex penthouse for \$9.4 million.

The tower's 64th-floor rooftop amenities encompass a Sky Spa, Sky Pool and Sky Gym with 360-degree panoramic views of the bay and downtown Miami's glimmering cityscape. Residents also have access to private steam, sauna and locker facilities, a 585 m² (6,300 square foot) state-of-the-art fitness center, and a juice bar. Additional features include a resort-style lap pool and separate children's pool on the 18th floor, private movie theater with stadium seating, billiards room and lounge and a clubroom.

Built by Ugo Colombo's CMC Group, Brickell Flatiron's design is the brainchild of architect Luis Revuelta, while

Architect	Revuelta Architecture International
Glazing Contactor	Giovanni Monti & Partners (GMP)
Laminator	Tecnoglass
Building Owner	CMC Group



Image © Tony Tur Photography

on the inside, Italian design architect Massimo Iosa Ghini uses light as a key element throughout the project with contrasting soft and bright lighting used to distinguish the indoor and outdoor spaces and create a comfortable yet refined atmosphere.

Colombo and Revuelta have already teamed up on a number of important buildings. In 1988 Colombo approached Revuelta with the proposal of building a luxury high-rise on Brickell Avenue. Completed in 1993, the 40-story condominium -



The 64 story Brickell Flatiron is now Miami's tallest condominium.

Image © Golden Dusk Photography

known as The Bristol Tower and defined by a circular design with wraparound balconies - was a roaring success and defined a new style of Miami chic. Revuelta went on to produce countless other architectural gems in Florida: the Azure condominium complex in Surfside; Grovenor House in Bayshore Drive; Santa Maria on Brickell Avenue. In each of his buildings, there is a feeling of kinetics - an echo of the rolling waves they often overlook. As Revuelta himself has said: "I always strive to create in our buildings a sense of movement in an otherwise static, concrete object."



The exterior of the Brickell Flatiron is a sea of glass, with significant amounts of glazing and balustrades on every floor.

Image © Tecnoglass

Echoing this aesthetic, the exterior of the Brickell Flatiron is a sea of glass, with significant amounts of glazing and balustrades on every floor. Features which are now much more commonplace in Florida and the neighboring states, thanks to structural glazing lamination, which is made possible with advanced PVBs and the SentryGlas® ionoplast interlayer from Trosifol.

“When we started developing in Miami in the early 1990s, our firm viewed Brickell and Downtown as a ‘blank canvas’ that would one day come to life as a vibrant residential and commercial district where streets were alive 24 hours a day,” explains developer Ugo Colombo, Founder of CMC Group.

Regarding the building’s extensive use of glazing, he comments: “No one wants four walls. People always love glass. It is great for the views and lets in natural light. Glass will always look better than stucco. It may work out a little more expensive, but I wanted to build a high-end product that looks better from both the inside and the outside.”

“We have used SentryGlas® in other developments,” Colombo continues, “and I know glass will continue to be a major part of our future plans. Supporting this is the fact that recent interlayer and lamination

developments mean we can offer clarity while meeting energy-efficiency requirements too.”

According to Carlos Amin, VP of Sales Tecnoglass & ES Windows: “Interlayers from Trosifol were used extensively thorough the development. SentryGlas® of different thicknesses was specified. 0.89 mm (35 mil) SentryGlas® was used on balconies, 1.52 mm (60 mil) was used for the amenities and 2.28 mm (90 mil) on all large-missile impact areas below 9 m (30 ft). Above 9 m (30 ft), for small-missile impact, 1.52 mm (60 mil) PVB interlayers from Trosifol were used.”

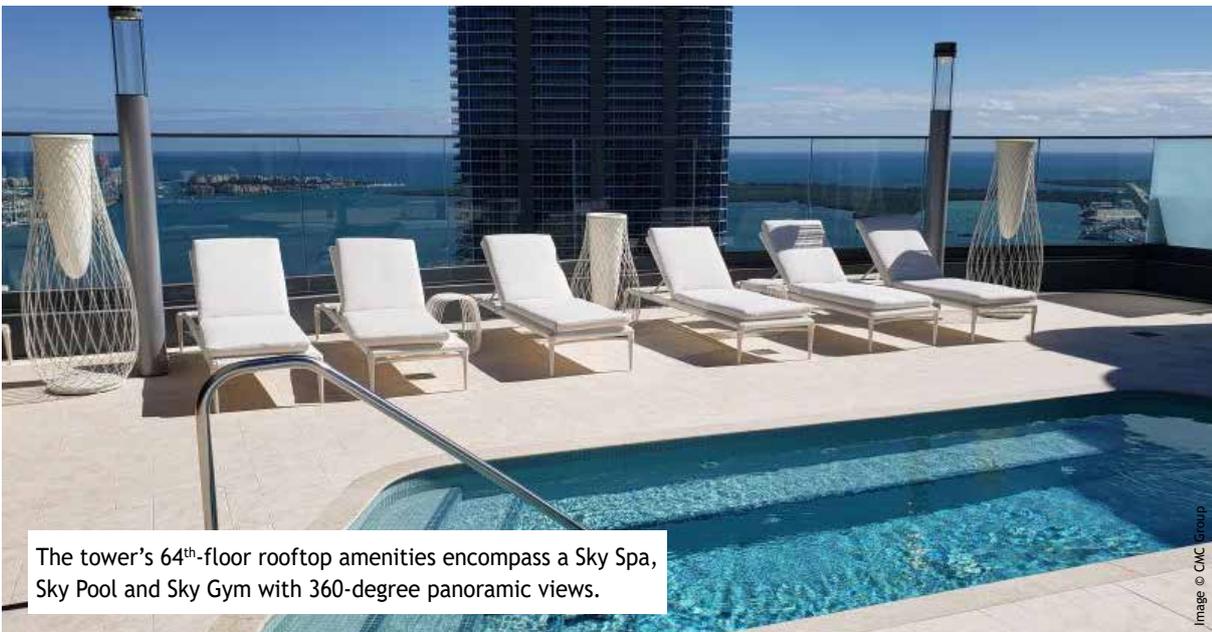
“The balcony railings color scheme alternated,” Amin adds, “with odd-number floors using grey glass and even numbers using clear glass, giving the building a striped effect. The railings were comprised of 5 mm ($\frac{3}{16}$ in) Clear or Grey + 0.89 mm (35 mil) SentryGlas® + 5 mm ($\frac{3}{16}$ in) Clear. Various ‘postless’ railings, on the other hand, used 10 mm ($\frac{3}{8}$ in) Clear + 1.52 mm (60 mil) SentryGlas® + 10 mm ($\frac{3}{8}$ in) Clear. Finally, the window wall glass was made up of 6 mm ($\frac{1}{4}$ in) Grey N70/38 + 1.52 mm (60 mil) Trosifol® PVB + 6 mm ($\frac{1}{4}$ in) Clear. Our low-e glass N70/38 was used over grey glass to reduce the solar heat gain coefficient as much as possible, while not darkening the view from the units too much.”

Trosifol is the global leader in PVB and ionoplast interlayers for laminated safety glass in the architectural segment. With the broadest product portfolio Trosifol offers outstanding solutions:

- **Structural:** Trosifol® Extra Stiff PVB and SentryGlas® ionoplast interlayer
- **Acoustic:** Trosifol® SC Monolayer and Multilayer for sound insulation
- **UV Control:** from full UV protection to natural UV transmission
- **UltraClear:** lowest Yellowness Index in industry
- **Decorative & Design:** black & white & colored interlayers

Samir Amin, VP of Operations and Logistics for GMP, the glazing contractor notes: “Over the years GMP has developed glazing systems that comply with the South Florida building codes, although every job has its own challenges and may require new designs, product engineering and testing. Brickell Flatiron required a variety of systems - all incorporating laminated glass. Trosifol® and SentryGlas® interlayers were an integral part of these systems, and helped us satisfy the architect’s vision.”

The Miami Dade building codes are some of the strictest in the World, they have to be with the regions susceptibility to tropical storms. It used to be that glazing was seen as a weak link in a building’s design, however, with the development of ever more capable interlayers, structural glazing is undergoing a renaissance and is being deployed on an ever-increasing number of buildings. Advances in coatings and additives are also giving glazing the ability to let in more light, but less heat - conquering the requirements of some of the most stringent energy efficiency demands too. The Brickell Flatiron is a graphic example of glazing in action, in a design that makes the most of natural light, while delivering the protection necessary to keep occupants safe.



The tower’s 64th-floor rooftop amenities encompass a Sky Spa, Sky Pool and Sky Gym with 360-degree panoramic views.

Image © CMC Group

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