

Santa Maria

Brickel Ave, Miami, USA

Industry

Residential Construction

Products

Krytol Internal Membrane,
Krytol T1, Krytol Repair Grout,
Krytol Waterstop Treatment,
Krytonite, Krytol Plug

Project Completion

2023

Engineer

Econ Partners

Contractor

Pro-Max Paint and
Restoration



SMART CONCRETE®

Background

Constructed in 1997, the Santa Maria is a prominent 51-story waterfront tower housing 174 luxury residences. Designed by the acclaimed Revuelta Vega Leon Architects and developed by Ugo Colombo, it is a landmark on Brickell Avenue, also known as Millionaire's Row.

Challenges

The Santa Maria faced significant waterproofing issues due to hydrostatic pressure and failed bentonite water stops at the joints, leading to water infiltration through the slab and walls into the garage and other areas. This water seepage resulted in the corrosion of rebar due to saltwater exposure, posing a threat to the structural integrity of the building.

Solution

The Santa Maria Homeowners Association (HOA) engaged Econ Partners, a structural engineering firm with a successful track record using Kryton's waterproofing solutions for similar issues. To execute the extensive repair work, the HOA selected Pro-Max Paint and Restoration, a firm specializing in structural repair and renovation for condominium and commercial properties.

The repair work involved:

- **Concrete Removal and Cleaning:** The damaged concrete in the garage was chipped out, and the affected areas were thoroughly cleaned.

- **Concrete Pouring:** Krystol Internal Membrane (KIM) was integrated into 100 yards of concrete used for the repairs. KIM employs hydrophilic crystalline technology to create permanently waterproof concrete, reducing permeability and eliminating the need for surface-applied membranes.
- **Additional Waterproofing Measures:** To ensure comprehensive waterproofing, several other Krystol products were used:
 - **Krystol T1:** A surface-applied crystalline treatment.
 - **Krystol Repair Grout:** For repairing and sealing cracks.
 - **Krystol Waterstop Treatment:** To seal joints and penetrations.
 - **Krytonite:** A swelling waterstop that expands on contact with water to seal construction joints.
 - **Krystol Plug:** Over 50 buckets were used for rapid setting to stop active water leaks.



Results

By leveraging Kryton's advanced waterproofing solutions, the Santa Maria HOA successfully addressed the critical waterproofing challenges, enhancing the building's durability and ensuring the longevity of its luxurious residences.

The combination of Kryton's Krystol products ensured that Santa Maria is now permanently protected against water ingress, thereby preventing future corrosion and structural damage.

The Krystol product line really works well for this type of complex repair work.

Paul Gonzalez

Site Superintendent / Head Product Manager
Pro-Max Paint and Restoration