

Case study

Henry® and Florida Quality Roofing Restore a Coral Gables Office Building Roof with a Sustainable Silicone Roof Coating System

Project Background

Located on a busy corner in downtown Coral Gables, Florida, a four-story, multi-tenant office building had a recurring problem; repeated failures on its 12,454 sq. ft., modified bitumen flat roof that eventually led to leaks throughout the building. Despite re-applications of an acrylic coating about every five years, the leaks always returned.

Looking for a cost-effective long-term solution that also accommodated the logistical challenge of the building location, the building owner Michael Steffens turned to Florida Quality Roofing (FQR) for a silicone roof restoration coating system.

As an architect himself, Steffens was aware of the cost- and energy-saving benefits of a silicone roof restoration vs a rip and replace. But he was unsure if his roof was a good candidate for restoration. FQR and Henry® together helped determine whether the roof could be restored with a Henry® Pro-Grade® Silicone roof coating system or if it had to be replaced.



Determining the viability of roof restoration

While testing was needed to determine if roof restoration was even possible, one challenge was already identified if a roof replacement was needed – the location of the building. Heavy sidewalk and street traffic moves along two sides of the building. A busy parking garage borders the building on one side, while the Coral Gables police station sits across the street. The building is also surrounded by power lines just four feet from the roof's edge. Using a lift, crane or any other hoisting equipment would not have been an option. So Steffens was holding out hope that his roof was a candidate for restoration.

The first step in determining whether the roof could be restored was to conduct a moisture survey. Florida Quality Roofing's German Duarte and a Henry® representative worked with a third-party specialist to conduct the survey. A moisture survey uses infrared and isotropic testing to measure the moisture content trapped within the layers of the roof.

"If the moisture survey indicated that more than 25% of the existing roof contained moisture, then we would not be able to restore it," said Duarte. "But with this particular scenario,

only 9% of the roof contained moisture. We knew we would be able to repair those specific areas first, prior to taking the next step to restoring the roof."

The roof also required an adhesion test to see how well the Henry® Pro-Grade® 988 Silicone roof coating system would stick to the existing acrylic coating. With positive results from both the moisture survey and the adhesion test, it was determined that Steffens' roof was a good candidate for restoration and specifically, a silicone roof coating.

Project at a glance

Location: Coral Gables, Florida

Contractor: Florida Quality Roofing

Henry® products featured

Roof system (restoration):

Pro-Grade® 988 Silicone White Roof Coating

Pro-Grade® 294 Base Coat and Sealer

Henry® Pro-Grade® Silicone roof coating system: an ideal choice to meet the building's roof restoration needs

“One of the main reasons we recommended the Pro-Grade® 988 Silicone roof coating was because it is a high solids silicone and has a high reflectivity,” said Duarte. “Additionally, Henry® offers warranties that require periodic inspections of the roof, making it a clear choice for effectively maintaining the roof over time.” Another benefit to the Pro-Grade® 988 Silicone roof coating system was that it holds up to ponding water, a necessity when considering the wet Florida climate.

Due to surrounding power lines, buildings and traffic, Duarte's team had to hand-load all of the required materials up a staircase in the neighboring parking garage and then unload them through a roof access door. It took the team two days to get everything on the roof, but Duarte notes that the 5 gallon pails of Pro-Grade® 988 were easy to carry and handle.

The Henry® roof restoration system proved easy to apply. To prevent any of the product from falling on pedestrians or parked cars below, Duarte's team hand-rolled a base coat and three coats of Pro-Grade® 988 Silicone roof coating across most of the roof, then used brushes to feather the edges and around any obstructions. Florida Quality Roofing completed the installation in two weeks, with no disruption to the commercial tenants or the surrounding businesses and street traffic.

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German Duarte
— Florida Quality Roofing

Energy-saving, award-winning results

Steffens was able to end the recurring leaks with a long-term solution – one that saved him thousands of dollars up front and that would continue to cut his building's energy costs for the next 15 years. “And possibly beyond,” Duarte adds, “since a properly maintained silicone roof coating system can itself be restored in 15 years, often with just one coat.”

For Steffens, ending the recurring leaks while saving money and energy was reward enough – Pro-Grade® 988 could reflect up to 88% of the sun's rays and help reduce his building's energy usage up to 50%* annually.

Not only did Steffens reap the inherent rewards of the roof restoration system, nine months later, he was rewarded again. He learned that his project had earned first place in the sustainability category of the S.T.A.R. Awards, which are presented annually by the Florida Roofing and Sheet Metal Contractors Association (FRSA), Florida's largest roofing trade association.

The award was Florida Quality Roofing's third-year-in-a-row win for sustainability, and the first time their company captured first place. Florida Quality Roofing appreciates the industry recognition and its company's relationship with Henry®. Ultimately, Henry® roof coating systems contribute to Florida Quality Roofing's market differentiation, which in large part poses the question: Why rip and replace when you can restore and save?

* enerstargov

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