

CASE STUDY: Envir-O-Sil

PROJECT SPECS

Surface type: SPF (recoat)

Size: 15,000 sq. ft. **Age:** 12+ years

Location: South Florida **Industry:** Tourism **Solution:** Envir-O-Sil

PRODUCTS

- EcoCleaner 925
- Acrylic Bonding Primer 905
- Silicone Brush-Grade 422
- High Solids Silicone 412

An acrylic coating is a bad idea for a roof that ponds water.

RESEARCH

We received a call from a condominium association in South Florida with a minor leak issue. An American WeatherStar Platinum Contractor was asked to help. The assumption was that it would be a minor leak repair and the contractor would be there for no more than an hour.

What they found a was an extremely flat Spray Polyurethane Foam roof that was coated with an acrylic coating. Spray foam makes a great roof because it is both water-tight and offers incredible insulation, but the key consideration of an SPF roof is that it is not UV stable—foam roofs must be top-coated. An acrylic top coat, however, is not recommended for roofs with ponding water issues. An acrylic coating works great on roofs with positive drainage, but not on roofs that pond water. This particular SPF roof is not actually flat, but more like a bowl with very few drains for water. The acrylic coating was failing over 60% of the roof. If something wasn't done in the next year, this roof could be a total loss.

As a solution, the contractor proposed the Envir-O-Sil system to repair and restore the roof.

PROCESS

First, an adhesion test patch was performed to ensure the system would adhere to the existing membrane. Next, the roof was pressure-washed to remove any dirt, dust, debris, and loose coatings. Then, Terminator 622—a thick waterproofing sealant that adheres especially well to silicone—was used for select problem areas of the roof in need of repair. All seams, fasteners, penetrations, and transitions were then coated with Silicone Brush-Grade 422. Once the problem areas and flashing details were addressed, two coats of High-Solids Silicone 412 were then applied to the roof. This low VOC product forms a weather-resistant, rubber-like seal and provides the roof with excellent UV protection and weatherability.

RESULT

While the main objective of this project was to stop leaks, proper treatment of the seams and other flashing details will ensure the long-term success and performance of this newly-installed system.

Once completed, the roof received an additional 10 years of warranty protecting it from any future leaking problems. For this building in the tourism industry, the Envir-O-Sil System was a much more cost-effective alternative to a full roof replacement.

The following photos show the roof before and after the project.

www.americanweatherstar.com Page 1 of 4



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Aerial View



Ponding water with acrylic debris

www.americanweatherstar.com Page 2 of 4



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www.americanweatherstar.com Page 3 of 4



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www.americanweatherstar.com Page 4 of 4