

Metal Roof Restoration

- Category:** Water-proofing & Insulation
- Customer:** Residential Building
- Project:** Roofing repair and installation of a spray polyurethane foam-based (SPF) roof system.
- Products:** DuraTite® CC2.5, DuraTite® 1395

Problem

A residential roof in Panama presented severe leaking issues in several areas caused by rain water overflow that could not be contained by the original drain pipe and existing canal.

Due to extreme weather conditions in the local area, it is important to provide products that will withstand prolonged rainy seasons and insulate the structure during waves of extreme heat. The materials used require quick setting times in case of unexpected rainfall and should be able to cure under ponded water.

The goal is to extend the lifespan and energy efficient properties of the roof while using products with low risk of premature corroding in this tropical maritime climate.

Solution

Panama Linings S.A., a Rhino Linings® applicator, recommended a combination of DuraTite CC2.5 and DuraTite 1395 for a watertight, energy efficient system, durable enough to extend the life of the roof and provide long term benefits against constant Sun exposure. Preparations begin with a pressure wash of the metal substrate to remove any loose paint, mold, grime, dust and dirt creating a clean surface for coating.

Next, 4 inch PVC piping is connected to the original drain pipe to reach across the entire canal. Skylights were raised 10 inches from the roof and replaced with polycarbonate. DuraTite CC2.5 was then spray-applied 1 inch thick covering the entire roofing structure.

Silicone coating DuraTite 1395, was then fluid applied over the SPF. The solar reflective properties of the white pigment used in DuraTite 1395 play an essential role in keeping the internal temperatures from reaching too high when the Sun is most intense. The white pigmented protective shell that is formed, works to distribute heat evenly across the surface of the roof by scattering sunlight.



Results

The applicator was able to extend the life of the roof, remedy the drainage issue and provide the insulation and durability the customer needed. According to the resident the system has been installed for over 3 years with no required maintenance and in home temperature has dropped 25%.



More About Rhino Linings® Products Used:

- **DuraTite CC2.5**– This two-component, closed cell, spray applied polyurethane foam with a self-adhering system requiring no mechanical fasteners. DuraTite CC2.5 demonstrates excellent thermal and dimensional stability, and requires almost no maintenance.
- **DuraTite 1395**– DuraTite1395 is a fast drying single component, silicone coating with moisture cure that is fluid applied. It is typically applied for its impact resistant characteristics and can be successfully installed in a wide range of ambient temperatures and humidity levels and will cure under cold, ponded water.

Call 858-450-0441, or visit rhinoliningsindustrial.com to learn more about becoming an authorized Rhino Linings applicator.

Industrial applications are highly specialized and specific consultation and training may be required to perform such applications. Rhino Linings does not provide confined space training and/or expertise in this area. Product MSDS sheets and specific chemical properties should be evaluated before undertaking any application.



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