

## CASE STUDY: ROOF DRAIN REPAIR

Drains and other penetrations through roofing membranes are some of the most common sources of leaks. Because they are made of dissimilar materials, the drain and existing membrane can often age differently, creating gaps that allow for water incursion. A well-positioned drain should be situated where it will see the most water flow. As such, leaks in and around drains are very common in wet weather and can create a lot of damage for the building owner.

### PROBLEM

Compression seal roof drains can be very tricky to seal as the roof ages. Designed to clamp to multiple layers, the drains are widely used, and the seal can become inconsistent as the layers age, the building vibrates, and the hardware weathers. Tightening alone often does not recreate a tight seal as the membrane does not always age in a uniform fashion.

### SOLUTION

Because Castagra's Ecodur+ Roof Coating has no maximum thickness and will cure at the same rate regardless of the amount used, it is perfect for flood applications. Allowing Ecodur+ to soak into the uneven walls ensures that no path for water is left open.

### APPLICATION RESULTS

Using moisture meters and cutting cores, the crew at **TrueWorks Roofing** (a **Castagra Licensed Company**) were able to determine the extent to which the membrane was trapping moisture between layers. They then cut away the upper layer and allowed the remaining layers to dry completely, as verified with further moisture scanning.

With the repair area clean, dry, and in sound condition, they moved onto the drain itself.

Using the "**plunger trick**" they blocked the drain and flooded the basin with VOC-free Ecodur+ Roof Coating. This allows the Ecodur+ to penetrate deep and block any possible path for water incursion. After allowing a few minutes to penetrate, the remaining Ecodur+ is brushed directly from the drain to the surrounding area.

The entire perimeter was 3-coursed (reinforced with 6" polyester fabric) to prevent movement and strengthen the transition.

Finally, the rest of the repair area was tied in to a minimum of 30 mils of Ecodur+.

As the coating set up, the tape was removed, leaving a clean repair area. A shiny new drain cap was placed like a cherry on top of sundae.

