

CASE STUDY: COMMUNITY COLLEGE CEMENTITIOUS ROOF



Spray Polyurethane Foam or SPF roofing is a great system for reducing cooling costs in hot climates. With an R-value averaging 6.5/ inch, the average 3" system will have an R-value of 19.5 and can see energy savings of up to 30%. Unfortunately, traditional coatings do a poor job of protecting the SPF roof from physical damage caused by hail, animals, foot traffic, and more.

Because of this, the cementitious roofing system was created to protect the insulating foam. Typical systems consist of 3-4 inches of SPF, followed by an acrylic-modified cement layer. By creating a hard outer shell, the cementitious system protects the foam much better than the coatings found in typical SPF systems, dramatically increasing service life.

PROBLEM

Like most roof systems, cementitious roofs require regular maintenance. Also like most roofs, cementitious roofs are frequently ignored. After an impressive 20+ years, most cementitious roofs reach the natural end of their unmaintained lives. Unfortunately, most rejuvenation coatings do not bond to the aged acrylic-modified cement.



SOLUTION

With its unique chemistry, Castagra's Ecodur+ Roof Coating forms a molecular bond to most materials with adhesion that is unrivaled in the roofing industry. After a multi-year study, it was found that Ecodur outperforms all competitors on cementitious roofs as well.

APPLICATION RESULTS

First, the entire roof was thoroughly cleaned by the qualified team of Castagra Certified Applicators at Johnson Roofing. Next, foam blisters were cut and filled with Ecodur+ Roof Coating. Because Ecodur+ has no maximum thickness, it makes blister filling easy. All loose, spalling, cement was removed to prevent coating over a layer that was poorly bonded. Reinforcing fabric was used to tie in existing flashing and prevent future movement.

After all detail work was completed, Ecodur+ was applied to a minimum of 30 mils, creating an additional tough outer shell that will protect the cementitious roof for decades to come. Finally, the entire project was given a bright-white acrylic topcoat that will reflect the harsh Arizona UV and aid the SPF in keeping the occupants cool and comfortable.

